Author Index, Volume 9 (1995)

Abmayr, S.M., 730
Abraham, J.A., 1953
Abrams, J.M., 1694
Adams, T.H., 491
Admon, A., 269
Aeschbacher, R.A., 330
Agapite, J., 1694
Aguzzi, A., 1608
Ahern, S.M., 521
Aizawa, S., 2646
Akhurst, R.J., 945
Alani, E., 234
Aldaz, C.M., 882
Alevizopoulos, A., 3051
Ålin, K., 2583
Allmansberger, R., 1316
Allshire, R.C., 218
Altman, S., 471
Ammerer, G., 2949
An, W., 256
Anderson, K.V., 783
Anderson, M.G., 123
Andrews, A., 2364
Andrews, J.E., 1654
Andrieux, A., 1883
Ang, S.-L., 3136
Aoki, D., 1199
Archer, T.K., 1366
Arents, G., 2770
Arias, C.A., 3122
Arita, M., 2821
Arokoski, J., 2821
Arst, Jr., H.N., 1622
Ashe, M.P., 3008
Atashi, J.R., 2936
Attar, P.S., 317
Auer, B., 509
Autexier, C., 2227
Bader, D.S., 1177
Bai, C., 650
Bai, Y., 3177
Bailey, A.M., 2609
Baker, T.A., 2399
Baldini, A., 650
Ballard, D., 1586
Balmain, A., 945
Baltimore, D., 1303, 2736
Barral, Y., 399
Barras, E., 1021
Basilico, C., 2635
Bate, M., 2373
Beach, D., 935, 1046
Beamonte, D., 1869
Beard, C., 2325
Becraft, P.W., 2292
Bedell, M.A., 455
Beg, A.A., 2736
Behringer, R.R., 686, 1388, 1667, 3027
Beijersbergen, R.L.,1340
Beitel, G.J., 3149
Belasco, J.G., 84
Belvin, M.P., 783
Benfey, P.N., 330
Bennett, P., 2143
Berg, C.A., 2495
Berghammer, H., 509
Berissi, H., 15
Bernards, R., 1340
Bi, E., 2949
Bickenbach, J.R., 317
Bieber, A., 1530
Bier, E., 2384
Bishop, J.M., 1309
Black, D.L., 2659
Blackburn, E.H., 59, 2214
Blendy, J.A., 1608
Blessing, M., 2105
Blumberg, B.W., 2923
Bodmer, R., 730
Boeke, J.D., 2888
Bonten, E., 2623
Bour, B.A., 730
Brachmann, C.B., 2888
Bradley, A., 882, 1237, 1667, 2808
Brancolini, C., 1846
Brannan, C.A., 455
Brentrup, D., 1530
Broker, T.R., 2335
Bronckers, A.L.J.J., 2808
Bronson, R.T., 2736
Brook, A., 1445
Bryant, P.J., 534
Bryson, S., 945
Bucher, N.L.R., 2350
Buck, S.W., 370
Buck, V., 2117
Bugge, T.H., 794
Bulfone, A., 2523
Bumcrot, D.A., 2911
Bundman, D.S., 317
Bungert, J., 3083
Butler, A., 2065
Byrne, C., 700
Calautti, E., 2279
Calley, J., 2482
Cameron, E.E., 2888
Camper, S.A., 2007
Candia, A., 3038
Canman, C.E., 600
Cannon, K., 2090
Cao, Z., 168
Capecchi, M.R., 108
Caponigro, G., 2421
Carlée, L., 1340
Carmena, A., 2373
Casanova, J., 2539
Celenza, Jr., J.L., 2131
Chaillet, J.R., 1177
Chaitanya, J., 84
Chan, R.C., 2659
Chandler, M., 2846
Chang, C.-P., 663
Chao, D.M., 897
Chen, W., 2482
Chen, Z., 1586
Chen, Z.-F., 686
Cheng, S., 2335
Chi, N.-W., 234
Chia, W., 139, 1223
Chinault, A.C., 808
Chittick, P., 123
Cho, K.W.Y., 2923, 3038
Chow, L.T., 2335
Chua, N.-H., 97
Chung, E.H., 2986
Clark, H.F., 1530
Clark, M.J., 521
Classon, M., 168
Cleary, M.L., 663
Cleary, M.A., 1679
Coburn, C., 2770
Cohen, O., 15
Colbert, T., 832
Cole, T.J., 1608
Collins, R.A., 294
Comer, A.R., 521
Conneely, O.M., 2266
Copeland, N.G., 455
Corbi, N., 2635
Corcoran, L.M., 1598
Cosma, C.L., 387
Courey, A.J., 3163, 3177
Cousins, F.M., 945
Coutts, S.B., 600
Cox, M.M., 248, 2053
Cozzarelli, N.R., 2859
Cranston, G., 218
Crews, S.T., 2936
Crispino, J.D., 2314
Cuesta, R., 1781
Cui, W., 945
Cui, Y., 423
Culí, J., 1869
Curnick, K.E., 573
Cvrčková, F., 1817
Cybulsky, M.I., 1
d'Azzo, A., 2623
Dai, Z., 2569
Dailey, L., 2635
Dammel, C.S., 626
Damsky, C.H., 1883
Danese, P.N., 387
Darnell, Jr., J.E., 984
Das, C., 3067
Daugherty, C.C., 794, 2020
Davé, U., 3083
Davis, D., 2623
Davis, L.J.B., 387
Davis, V., 1
de Bono, M., 155
De Virgilio, C., 1817, 2949
Dean, C., 1797
Degen, J.L., 794, 2020
DeGregori, J., 2873
Deiss, L.P., 15
DeMayo, F.J., 2266
Deng, C., 2712
Deutsch, J., 1137
Devine, S.E., 2888
Dick, T., 1223
Dickson, C., 2364
Dillin, A., 911
Dinh, A., 1223
Do, B., 1074
Doherty, P., 2623
Donehower, L.A., 882
Donovan, P.J., 455
Dotto, G.P., 2279
Dubnicoff, T., 3163, 3177
Dudley, A.T., 2795
Duffie, E., 945
Duharcourt, S., 2065
Duncan, I., 2240
Durand, B., 1021
Duronio, R.J., 1445, 1456
Dusserre, Y., 3051
Dynlacht, B.D., 1740
Dyson, N., 1445
Eaves, C.J., 1753
Eckner, R., 1188
Edomi, P., 1846
Edwards, M., 650
Eisenbeis, C.F., 1376
Ekwall, K., 218
Elgin, S.C.R., 1263
Elledge, S.J., 650
Elson, A., 2712
Emery, J., 2384
Emmons, S., 2482
Engel, J.D., 3083
Englert, C., 2143
Enver, T., 2203
Epner, E., 2203
Errington, J., 1316
Espeso, E.A., 1622
Evans, E.P., 455
Evans, R.M., 317, 1033
Ewen, M.E., 204
Ezzell, R.M., 2279
Fabbretti, E., 1846
Faessler, R., 2821
Fambrough, D., 2936
Fantl, V., 2364
Fantuzzi, G., 1608
Farmer, S.R., 2350
Fässler, R., 1896
Featherstone, M.S., 1667
Feinstein, E., 15
Feldmann, K.A., 330
Ferguson, B., 2949
Fernandes, M., 2756
Ferrés-Marcó, D., 1869
Fiering, S., 2203
Filipowicz, W., 1411
Fink, G.R., 2131
Firtel, R.A., 1427
Fitzgerald-Hayes., M., 573
Fleming, E.S., 72
Flick, M.J., 794
Follette, P.J., 1709
Fournier, M.J., 2433
Fowlis, D.J., 945
Fox, C.A., 911
Fragoso, G., 1933

Frampton, J., 1250
Freeling, M., 2292
Fuchs, E., 700
Fujii. H., 3109
Fukuda, M.N., 1199
Funk, C.R., 2266
Furriols, M., 2539
Galaktionov, K., 1046
Galvin, K.M., 1188
Garcia-Barrio, M.T., 1781
Gasch, A., 97
Geiduschek, E.P., 2974
Gellert, M., 2193, 2409
Gerondakis, S., 1965
Gertler, F.B., 521
Giardina, C., 1098
Giese, K., 995
Gillemans, N., 2623
Gillespie, D.E., 2495
Gilley, D., 2214
Gilmartin, G.M.,72
Gilmer, T.M., 600
Ginsberg, D., 869
Glass, C.K., 1992
Glover, D.M., 1059
Godley, L.A., 882
Goff, S.P., 2583
Golden, S.S., 1469
Goldstein, E.S., 730
Gómez-Skarmeta, J., 1869
Gonzy-Tréboul, G., 1137
Goodman, C., 1530
Goodman, C.S., 2936
Gordon, J.S., 317
Goto, Y., 2509
Gottlieb, T.M., 193
Graf, T., 1250
Gralla, J.D., 2305
Grant, S.G.N., 1909
Graveley, B.R., 72
Gray, J., 882
Greenblatt, J., 2831
Greenwald, I., 341, 3149
Greider, C.W., 2227
Grell, E., 2384
Grether, M.E., 1694
Griep, A.E., 2157
Griffin, P., 3008
Grisafi, P.L., 2131
Grosschedl, R., 995
Grossman, A.D., 547
Grosveld, F.G., 2623
Grosveld, G.C., 2623
Groudine, M., 559, 2203
Grummit, I., 193
Grumont, R.J., 1965
Grunstein, M., 410
Guan, K.L., 742, 756
Guarente, L., 47
Guillemot, F., 3136
Gunaratne, P.H., 808
Gurtner, G.C., 1
Guthrie, C., 855
Haber, D.A., 2143
Haber, J.E., 1922
Hadam, M.R., 1021
Hagan, I.M., 1059
Hagan, K.W., 423
Hager, G.L., 1933
Hagler, J., 1586
Hahn, S., 832
Haidacher, D., 509
Hake, S., 2292
Halsey, C., 1728
Hamada, H., 3109
Han, M., 742, 2251
Hannon, G., 935
Harlow, E., 1740
Harper, J.W., 650
Harshey, R.M., 2545
Hartley, L., 1654
Harvey, R.P., 1654
Hashimoto, C., 2923, 3038
Haupt, Y., 2170
Hauser, M.-T., 330
Hauser, P.M., 1316
Haward, S., 1797
Hawley, S.H.B., 2923
He, F., 437
Heinrich, G., 2143
Helminen, H., 2821
Hengartner, C.J., 897
Herr, W., 1679, 2445
Herrscher, R.F., 3067
Hershey, J.W.B., 1781
Herskowitz, I., 2770
Hesse, J.E., 2193
Heyman, R.A., 317, 1033
Hickey, L.B., 559
Higashinakagawa, T., 1211
Hinnebusch, A.G., 1781
Hirata, K., 612
Hirayoshi, K., 2756
Hirsh, A.S., 2986
Hochschild, A., 2986
Hodgkin, J., 155
Hoecker, U., 2459
Hoffmann, F.M., 521
Hofmann, C., 2808
Hogan, B.L.M., 2105
Hogan, E., 587
Hollingsworth, N.M, 1728
Holloway, J.M., 1992
Holmbäck, K., 2020
Horan, G.S.B., 1667
Horvath, C.M., 984
Horvitz, H.R., 756, 3149
Hotta, Y., 925
Howe, J.A., 1164
Howell, M., 1164
Hu, M., 2203
Hu, S., 2936
Huang, J.D., 3163, 3177
Hughes, A.R., 2266
Hull, M.W., 481
Hummler, E., 1608
Humphries, R.K., 1753
Hunt, T., 1164
Iavarone, A., 1831
Iba, H., 2509
Ikegami, Y., 612
Imakado, S., 317
Ingram, R.S., 2079
Inoue, K., 3038
Inouye, M., 972
Inouye, S., 972
Ishibashi, M., 3136
Jacks, T., 935
Jackson, S.P., 193
Jacobs, J., 700
Jacobson, A., 437
Jaenisch, R., 2325
James, B., 2482
James, W., 3008
Jansson, L., 769
Javerzat, J.-P., 218
Jayaram, M., 2545
Jenkins, N.A., 455
Jensen, N.J., 2020
Jentsch, S., 399
Jessus, C., 1046
Jiménez, F., 2373
Jin, Y., 182, 783
Jishage, K., 3109
John, S., 1933
Johnson, A.D., 182, 2903
Johnson, C.H., 1469
Johnson, W.A., 123
Jones, A.R., 1491
Jones, J., 1797
Jones, K.A., 2090
Joung, J.K., 2986
Juang, J.-L., 521
Jung, U.S., 1559
Justice, R.W., 534
Kadonaga, J.T., 1978, 2090
Kageyama, R., 3136
Kaiser, D., 1633
Kalla, K., 3122
Kamada, Y., 1559
Kameda, T., 2509
Kandel, E.R., 1909
Kaplan, K.B., 1505
Kaplan, M.H., 3067
Karl, K.A., 1909
Karsenty, G., 2808
Kassavetis, G.A., 2974
Kastan, M.B., 600
Katoh-Fukui, Y., 1211
Kawamura, K., 3109
Kawano, H., 3109
Keene, J.D., 1400
Keith, K.C., 573
Kendall, S.K., 2007
Kennell, J.C., 294
Kerkhoven, R.M., 1340
Khillan, J.S., 2821
Kiebler, M.A., 1909
Kim, J., 1354
Kim, S., 3038
Kimchi, A., 15
Kimura, C., 2646
King, G., 2986
Kingsley, C., 995
Kinoshita, K., 1572
Kinzler, K., 935
Kiraly, K., 2821
Kirk, K.E., 59
Kirshner, J.R., 995
Kiss, T., 1411
Kitajewski, J., 2911
Kleckner, N., 1123
Klier, G., 1199
Klimanskaya, I.V., 1883
Klingensmith, J., 1087
Knoblich, J.A., 1327
Koleske, A.J., 897
Kolodner, R., 234
Kondo, S., 612, 1211
König, H., 1598
Köntgen, F., 1965
Kornfeld, K., 756
Koshland, D., 587
Kovelman, R., 675
Kozak, C.A., 2712
Kozak, K., 1223
Krieglstein, K., 1608
Kruger, W., 2770
Krumm, A., 559, 1978
Kuhn, A., 193
Kuiper, M.T.R., 294
Kukolj, G., 2556
Kulessa, H., 1250
Kumar, K.P., 1479
Kuno, J., 3109
Kuratani, S., 2646
Kuroiwa, A., 2509
Kurooka, H., 1572
Kuspa, A., 1111
Kustu, S., 2042
Labosky, P.A., 2105
Lafontaine, D., 2470
Lambowitz, A.M., 294
Lane, T.F., 2712
Lansdorp, P.M., 1753
Lapveteläinen, T., 2821
Largman, C., 663, 1753
Lassar, A.B., 2911
Laurent, M.N., 2923
Lawrence, H.J., 663, 1753
Lebedeva, N.V., 1469
Leblanc, B.P., 1811
Lecourtois, M., 2598
Ledbetter, D.H., 808
Leder, P., 1177, 2712
Lee, B.-U., 2964
Lee, J.-S., 1188
Lee, M.-H., 639
Lee, M.S., 2214
Lehner, C.F., 1327
Leighton, P.A., 2079
Lelsz, D.L., 3067
Lengyel, J.A., 3163, 3177
Lentine, K., 1543
Leone, G., 2873
Lepesant, J.-A., 1137
Less, K., 2964
Levchenko, I., 2399
Levin, D.E., 1559
Levine, A.J., 2184
Lewis, P.J., 1316
Ley, T.J., 2203
Li, E., 2325
Li, H., 1

Li, P., 3122
Li, R., 1654, 1965
Li, S.-W., 2821
Liang, W.-Q., 2433
Liao, S.-M., 897
Liaw, G.-J., 3163, 3177
Liebl, E.C., 521
Lieuw, K.H., 3083
Lim, K.C., 3083
Lin, J., 2184
Lindquist, S., 2240
Lis, J.T., 1098, 2756
Liu, F., 471
Liu, H., 2821
Liu, X., 1766
Liu, Y., 1469
Livingston, D., 1188
Livingston, D.M., 869
Livingstone-Zatchej, M., 410
Lloyd, A., 1223
Lockwood, W.L., 730
Londoño-Vallejo, J.-A., 503
Long, S.R., 714
Loo, S., 911
Loomis, W.F., 1111
Lui, Q., 3083
Luo, G., 2808
Luo, L., 2399
Lydon, J.P., 2266
Lynch, K.W., 284
Lyons, I., 1654
Lyons, K.M., 2795
Lyu, M.S., 2712
Ma, H., 1797
Mach, B., 1021
Macleod, K.F., 935
Magnuson, R., 547
Mah, T.-F., 2831,
Maheswaran, S., 2143
Maloy, S., 2034
Mangelsdorf, D.J., 1033
Mani, S.K., 2266
Maniatis, T., 284, 1586
Manley, J.L., 358, 843, 2672
Mann, C., 399
Mann, J.R., 1857, 3097
Manseau, L., 2482
Manser, E., 1817
Marczynski, G.T., 1543
Marsolier, M.-C., 410
Martienssen, R., 1797
Martin, D.I.K., 2203
Martin, J.F., 1237
Martínez, C., 1869
Martinez, S., 2523
Massagué, J., 639, 1831
Masuya, H., 1645
Matsuo, I., 2646
Matsuoka, S., 650
McCarthy, S.A., 1953
McCarty, D.R., 2459
McCormick, C.A., 2539
McCoy, M.J., 1
McEvilly, R.J., 3122
McKnight, S.L., 168
McKune, K., 481
McMahon, A.P., 2911
McMahon, M., 1953
McNabb, D.S., 47
Medina, D., 882
Megee, P.C., 1716
Melandri, F., 1586
Meneses, J., 1883
Meneses, J.J., 2523
Mermod, N., 3051
Mertz, J.E., 1766
Metcalf, D., 1965
Meyer, E., 2065
Meyer, M., 1896
Mikami, M., 1199
Millar, J.B.A., 2117
Miller, S.J., 204
Min, H., 2659
Minniti, A.N., 1074
Miron, A., 2873
Mishina, Y., 3027
Missero, C., 2279
Miyamoto, H., 612
Miyamoto, S., 2723
Modolell, J., 1869
Mogridge, J., 2831
Mohr, S., 294
Monaghan, A.P., 1608
Montogomery, Jr., C.A., 2266
Moran, E., 1188
Morgan, B.A., 1716
Morgan, D.O., 1505
Moriwaki, K., 1645
Morreau, H., 2623
Motoyama, J., 1211
Moudrianakis, E.N., 2770
Muhlrad, P.J., 1074
Munoz-Dorado, J., 972
Münsterberg, A.E., 2911
Murant, T., 2335
Murthy, K.G.K., 2672
Murugasu-Oei, B., 139
Mymryk, J.S., 1366
Nabeshima, K., 1572
Nadaseko, Y., 1572
Nagata, A., 3109
Nakai, S., 3109
Nakanishi, S., 3136
Nakao, M., 808
Nakayama, J., 1199
Nakazato, S., 2509
Naranda, T., 1781
Nasmyth, K., 1817
Naya, F.J., 1009
Nevins, J.R., 2873
Newport, J.W., 1164
Nguyen, H.T., 730
Nihonmatsu, I., 612
Nimmo, E.R., 218
Nishi, M., 3109
Nishizawa, N., 97
Noda, T., 3109
Noll, M., 534, 1530
Noller, H.F., 626
Norris, J.L., 358
Nozawa, S., 1199
Nusse, R., 1087
O'Brien, M.A., 730
O'Brien, T., 1098
O'Connell, S.M., 3122
O'Farrell, P.H., 1445, 1456, 1709
O'Malley, B.W., 2266
Oetjen, J., 72
Ogawa, H., 925
Ogawa, J., 714
Ogawa, T., 925
Ohkura, H., 1059
Ohtani, K., 2873
Okamura, S., 897
Oliver, C.J., 204
Olson, E.N., 1388
Olson. E.M., 1237
Ong, E.S., 1033
Orejas, M., 1622
Oren, M., 2170
Ostrovsky, P.C., 2034
Palombella, V.J., 1586
Pan, H., 2157
Paranjape, S.M., 1978
Parker, R., 2421
Parker, S., 650
Parsons, L.M., 1654
Pazin, M.J., 2090
Pedersen, R.A., 1883, 2523
Peeper, D.S., 204
Peltarri, A., 2821
Peltz, S.W., 423
Peñalva, M.A., 1622
Pendergast, A.M., 2569
Perkins, G.L., 123
Perlmann, T., 769
Peters, K., 956
Peterson, C.L., 2770
Peterson, M.G., 2445
Pfisterer, P., 1598
Phan, H., 2482
Pillus, L., 2888
Pinkel, D., 882
Piotrowski, J., 1559
Polard, P., 2846
Polyak, K., 1831
Ponte, L., 1728
Posakony, J.W., 2609
Pote, J., 317
Potter, S.S., 2020
Pringle, J.R., 1817, 2949
Pritchard, C.A., 1953
Prockop, D.J., 2821
Proudfoot, N.J., 3008
Pyle, R., 882
Qian, X., 2053
Qiu, M., 2523
Ramírez-Solis, R., 1667
Ramsden, D.A., 2409
Rancourt, D.E., 108
Redd, M.J., 2903
Reinberg, D., 1479
Reith, W., 1021
Reynisdóttir, I., 639, 1831
Richardson, H., 1327
Rine, J., 911
Rio, D.C., 269, 1278
Roark, M., 2384
Robb, L., 1654
Roberts, J.M., 1149
Roberts, M.S., 1933
Roberts, S., 832
Robertson, E.J., 2795
Robinson, K., 2203
Robles, J., 2964
Roche, S.E., 1278
Rockmill, R., 2684
Rodrigues, V., 139
Rodríguez, I., 1869
Roeder, G.S., 2684
Roeder, R.G., 675
Romac, J.M.J., 1400
Roop, D.R., 317
Rose, A.M., 956
Rosenfeld, M.G., 1992, 3122
Rosewell, I., 2364
Rothbächer, U., 3038
Rothnagel, J.A., 317
Rottier, R., 2623
Roufa, D.J., 304
Rowan, S., 2170
Rozenfeld, S., 663
Rubenstein, J.L.R., 2523
Rubin, G.M., 1709
Rudolph, K.M., 3163
Ruppert, S., 2747
Ryan, A.K., 3122
Saam, J.R., 2079
Sabbatini, P., 2184
Sabourin, J.R., 294
Sachs, A.B., 2997
Sadofsky, M.J., 2193
Sagai, T., 1645
Sakonju, S., 1223
Samuels, M.L., 1953
Samuelson, L.C., 2007
Sarkar, S., 1622
Sato, T., 1199
Sauer, K., 1327
Saunders, T.L., 2007
Sauvageau, G., 1753
Saveliev, S.V., 248
Saville, B.J., 294
Sawchenko, P.E., 3122
Schedl, T., 1491
Scherer, D., 1586
Scherthan, H., 2684
Scheuermann, R., 3067
Schiff, M., 1278
Schmid, W., 1608
Schmidt-Grimminger, D.-C., 2335
Schneeberger, R.G., 2292
Schneider, C., 1846
Schneitz, K., 1530
Schonemann, M.D., 3122
Schütz, G., 1608
Schwarx, E.M., 2723
Schweiger, M., 509
Schweisguth, F., 2598
Schweitzer, R., 1518
Scully, K.M., 1992
See, R.H., 1188

Seger, R., 1518
Sentenac, A., 410
Sha, W.C., 2736
Shaharabany, M., 1518
Shapiro, L., 1543
Sharp, P.A., 1354, 2314
Sharpe, A., 1
Shaulian, E., 2170
Shaulsky, G., 1111
Shavit, J.A., 3083
Sheline, C.T., 2090
Shen, W.-F., 663
Sheridan, P.L., 2090
Sherman, J.M., 2888
Sherr, C.J., 1149
Sherry, N., 935
Shi, Y., 1188, 2583
Shi, Y.-B., 2696
Shi, Y.-P., 882
Shiba, K., 3109
Shilo, B.-Z., 1518
Shimamura, K., 2523
Shimkets, L.J., 2964
Shinohara, A., 925
Shiota, K., 3136
Shiroishi, T., 1645
Shirokawa, J.M., 3177
Shopland, L.S., 2756
Shore, D., 370
Shrigley, R.J., 123
Shyamala, G., 2266
Shykind, B.M., 1354
Siebel, C.W., 269
Signon, L., 1123
Sil, A., 2770
Silhavy, T.J., 387
Simon, D.I., 2020
Singer, M., 1633
Singh, H., 1376
Singh, N., 2251
Sinn, E., 675
Skalka, A.M., 2556
Sluss, H.K., 204
Small, K., 2020
Smith, M.M., 1716
Smith, R.L., 2903
Snyder, W.B., 387
Sohocki, M., 2808
Solomon, J.M., 547
Spraque, Jr., G., 2949
Springer, P., 1797
Srayko, M., 956
Srivastava, A., 547
Stamp, G., 2364
Steimle, V., 1021
Stein, P.L., 2279
Steller, H., 1694
Stellrecht, C.M.M., 1009
Stephens, L.E., 1883
Stevenson, B.J., 2949
Stevenson, J.K., 2723
Stewart, C.L., 2079
Stingl, L., 509
Stoler, S., 573
Storb, U., 1376
Stragier, P., 503
Strasser, A., 1965
Struhl, G., 2539
Struhl, K., 821
Strunnikov, A.V., 587
Stuart, D., 2780
Stunnenberg, H.G., 1811
Sturtevant, M.A., 2384
Suh, T.T., 2020
Sun, J.-S., 843
Sundaresan, V., 1797
Sutcliffe, J.S., 808
Sutherland, A.E., 1883
Suzuki, A., 3027
Suzuki, K., 2623
Swedlow, J.R., 1505
Sym, M., 2684
Szabó, P.E., 1857
Szabó, P., 3097
Szeto, D.P., 1992
Taghert, P.H., 730
Takahashi, T., 97
Takeda, N., 2646
Takeuchi, M., 1572
Takeuchi, T., 1211
Tamame, M., 1781
Tanaka, S., 410
Tarlinton, D., 1965
Tarun, Jr., S.Z., 2997
Tasheva, E.S., 304
Telling, A., 2203
Terasawa, M., 925
Thacker, C., 956
Thoma, F., 410
Thompson, C.M., 897
Thorsteinsdottir, U., 1753
Tilburn, J., 1622
Tilghman, S.M., 2079
Tintut, Y., 2305
Tjian, R., 2747
Togashi, S., 612
Tokino, T., 935
Tollervey, D., 2470
Treisman, J.E., 1709
Tsai, M.-J., 1009
Tsai-Pflugfelder, M., 3051
Tsinoremas, N.F., 1469
Tsuchiya, R., 1211
Tsuzuki, T., 108
Tuck, S., 341, 3149
Tucker, P.W., 3067
Tzamarias, D., 821
Udo, H., 972
Ueda, R., 612
Ueno, N., 3027
Umen, J.G., 855
Umesono, K., 1033
Unsicker, K., 1608
Vaessin, H., 2384
Vairo, G., 869
Valentine, S.A., 3177
Van Antwerp, D., 2723
van Gent, D.C., 2193
van Leeuwen, F., 1087
Vandenhaute, J., 2470
Varkey, J.P., 1074
Varmus, H.E., 882, 1505
Vasil, I.K., 2459
Vazquez de Aldana, C.R., 1781
Verma, I.M., 1289, 2723
Vershon, A.K., 182
Vogelstein, B., 935
Vogt, P.K., 1289
Volpe, T., 1797
von der Weid, T., 3051
Vousden, K., 2170
Voz, M.L., 2090
Wagner, E.F., 509
Wahli, W., 3051
Wakana, S., 1645
Walczak, V.R., 317
Wallrath, L.L., 1263
Wang, J.T., 2305
Wang, J.Y.J., 31
Wang, X.-J., 317
Wang, Z., 675
Wang, Z.-Q., 509
Ward, S., 1074
Watabe, T., 2923, 3038
Wedel, A., 2042
Welch, P.J., 31
Welte, M.A., 2240
Wen, Z., 984
Wenger, D., 2623
Wensink, P.C., 256
White, E., 2184
White, K., 1694
Whitehall, S.K., 2974
Wieser, J., 491
Wilkins, R.C., 1098
Wilkinson, M.G., 2117
Willy, P.J., 1033
Wilson, A.C., 2445
Winnier, G., 2105
Wirth, T., 1598
Wisniewski, S., 317
Wittenberg, C., 2780
Wodarz, A., 1087
Wolffe, A.P., 2696
Wolgemuth, D.J., 1667
Wong, J., 2696
Wood, R.I., 2007
Woods, D.F., 534
Woychik, N.A., 481
Wu, L.J., 1316
Wu, X., 1922
Wu, Y., 742
Wu, Z., 2350
Wünnenberg-Stapleton, K., 2923
Xie, J.-E., 1445
Xie, Y., 2350
Xing, Y., 47
Yamamoto, D., 612
Yamamoto, M., 2509
Yamazaki, Y., 1211
Yanagawa, S., 1087
Yanagida, M., 1572
Yang, J.-Y., 2545
Yang, X., 1223
Yang, X., 139
Yeh, W.C., 168
Yeo, S.L., 1223
Yokouchi, Y., 2509
Young, R.A., 897
Yu, C., 2986
Yuan, H., 2635
Yudate, T., 3109
Zarkower, D., 155
Zawel, L., 1479
Zechiedrich, E.L., 2859
Zhang, J., 897
Zhang, P., 650
Zhang, S., 423
Zhang, W., 1388
Zhou, P., 700
Zhou, X.Y., 2623
Zhu, L., 1740
Zhuang, Y., 2203
Zilian, O., 534
Zufferey, M., 1021

Subject Index, Volume 9 (1995)

A

Abelson tyrosine kinase
  Abi-2, substrate for c-Abl (Dai and Pendergast), 2569–2582
  association of Abi-1 with Abl oncoproteins (Shi et al.), 2583–2597
  enabled, dosage-sensitive suppressor of mutations in *Drosophila* Abl (Gertler et al.), 521–533
Abi-1, association with Abl oncoproteins (Shi et al.), 2583–2597
Abi-2, substrate for c-Abl (Dai and Pendergast), 2569–2582
Abl substrate, Abi-2, novel SH3-containing protein (Dai and Pendergast), 2569–2582
Abl-interacting proteins
  Abi-2, substrate for c-Abl (Dai and Pendergast), 2569–2582
  association of Abi-1 with Abl oncoproteins (Shi et al.), 2583–2597
abrupt, control of neuromuscular connections (Hu et al.), 2936–2948
Acetylation, of histone H4 (Megee et al.), 1716–1727
achaete, regulation with *scute* by shared enhancer-like elements (Gómez-Skarmeta et al.), 1869–1882
Achaete–scute complex, regulation of *achaete* and *scute* by shared enhancer-like elements (Gómez-Skarmeta et al.), 1869–1882
Actin ring, role of *S. pombe* plo1 in actin ring formation (Ohkura et al.), 1059–1073
Actin-associated proteins, similarity of the *C. elegans spe-26* gene product to kelch and scruin (Varkey et al.), 1074–1086
Active site assembly, enhancer-independent assembly of Mu A tetramer (Yang et al.), 2545–2555
Activin
  effects of dominant-negative form on *Xenopus* early development (Hawley et al.), 2923–2935
  role in formation of dosal mesoderm in *Xenopus* (Watabe et al.), 3038–3050
Adenovirus, relief of YY1 transcriptional repression by E1A (Lee et al.), 1188–1198; Addendum, 1948–1949
Adipocyte differentiation. *See also* Adipogenesis
  role of C/EBP family (Yeh et al.), 168–181
Adipogenesis. *See also* Adipocyte differentiation
  induction by C/EBPβ in mouse fibroblasts (Wu et al.), 2350–2363
ADRPT, effects of gene knockout in mice (Wang et al.), 509–520
AEF1, function in regulation of *yolk protein* enhancer in *Drosophila* (An and Wensink), 256–266
Afibrinogenemia, in fibrinogen-deficient mice (Suh et al.), 2020–2033
Aggregation, competence, developmental timing, and gene regulation in *Dictyostelium* (Firtel), 1427–1444 Review
Allantois, in VCAM-1-deficient embryos (Gurtner et al.), 1–14
α2, interaction with Ssn6 (Smith et al.), 2903–2910
α-amylase genes, germination-specific induction inhibition by Viviparous-1 in maize (Hoecker et al.), 2459–2469
α-integrins, role of VCAM-1 in umbilical cord and placenta formation (Gurtner et al.), 1–14
Amino acid repeats, TPRs of Ssn6 and requirement for interaction with homeo domain protein α2 (Smith et al.), 2903–2910
Ankyrin repeats, DAP kinase (Deiss et al.), 15–30
Anterior/posterior axis, formation during oogenesis requires *homeless* in *Drosophila* (Gillespie and Berg), 2495–2508
Antisense cDNA, use in cloning DAP-1 and DAP kinase, mediators of programmed cell death (Deiss et al.), 15–30
Antisense RNA, as positive regulator of human *RPS14* transcription (Tasheva and Roufa), 304–316
Apoptosis. *See also* Programmed cell death
  growth-factor modulation of p53-mediated apoptosis (Canman et al.), 600–611
  induced by overexpression of *gas3/PMP22* (Fabbretti et al.), 1846–1856
  p53-dependent and independent apoptosis during lens development in mice (Pan and Griep), 2157–2169
  role of *Drosophila head involution defective* gene (Grether et al.), 1694–1708
  stabilization of p53 by WT1 (Maheswaran et al.), 2143–2156
  by *trans*-activation-deficient p53 in HeLa cells (Haupt et al.), 2170–2183
  triggered by p53-mediated transcription (Sabbatini et al.), 2184–2192
Arabidopsis
  enhancer traps and gene traps for studying development (Sundaresan et al.), 1797–1810
  pathway for lateral root formation (Celenza et al.), 2131–2142
  role of *DIMINUTO* in cell elongation (Takahashi et al.), 97–107
  SABRE gene in regulation of cell expansion (Aeschbacher et al.), 330–340
Aspergillus nidulans
  pH-regulated proteolytic activation of PacC (Orejas et al.), 1622–1632
  role of *flbD* in development (Wieser and Adams), 491–502
ASV, distances between active sites in IN–DNA complexes (Kukolj and Skalka), 2556–2567
ATPase activity, of NTRC in bacteria (Wedel and Kustu), 2042–2052
Autophosphorylation, DAP kinase (Deiss et al.), 15–30
Axis, dorsal/ventral, formation during oogenesis requires *homeless* in *Drosophila* (Gillespie and Berg), 2495–2508

B

B cell differentiation, *CD36*, target gene for Oct-2 (König et al.), 1598–1607
B lymphocytes
  restricted transcription involves the Bright protein (Herrscher et al.), 3067–3082
  role of RFX5 mutation in bare lymphocyte syndrome (Steimle et al.), 1021–1032
Bacillus subtilis
  activation of σ^E by σ^F in *B. subtilis* (Londoño-Vallejo and Straiger), 503–508
  sensing pathways for competence factors ComX and CSF (Solomon et al.), 547–558
Bare lymphocyte syndrome, mutation of RFX5, a novel DNA-binding regulatory factor (Steimle et al.), 1021–1032
Basic helix–loop–helix protiens. *See* Helix–loop–helix proteins, basic
β-globin gene
  deletion of 5′HS2 of the murine β-globin LCR (Fiering et al.), 2203–2213
  gene switching by locus control region elements HS3 and HS4 (Bungert et al.), 3083–3096
  use in characterization of intron-independent gene expression (Liu and Mertz), 1766–1780
β-lactamase, secretion blocked by phosphorylation by the *M. xanthus pkn2* gene product (Udo et al.), 972–983

β-1 integrins, effects of gene disruption in mice (Stephens et al.), 1883–1895; (Fässler and Meyer), 1896–1908
β2, novel bHLH activator of the insulin gene (Naya et al.), 1009–1019
bHLH proteins. *See* Helix–loop–helix proteins, basic
Bioluminescence, used to follow gene expression in *Synechococcus* (Liu et al.), 1469–1478
BMPs. *See* Bone morphogenetic proteins
Bmpr, encodes an essential type I bone morphogenetic receptor in mouse (Mishina et al.), 3027–3037
Bone, defects in collagen II-deficient mice (Li et al.), 2821–2830
Bone marrow transplantation, in testing effects of *HOXB4*-transduced stem cells (Sauvageau et al.), 1753–1765
Bone morphogenetic proteins
  disruption of signal and neural induction in *Xenopus* (Hawley et al.), 2923–2935
  requirement for
    BMP-4 during mouse development (Winnier et al.), 2105–2116
    BMP-7 during eye development, nephrogenesis, and skeletal patterning (Luo et al.), 2808–2820
    BMP-7 during mammalian kidney and eye development (Dudley et al.), 2795–2807
Branchial arch, abnormal morphogenesis in *Dlx-2* null mice (Qiu et al.), 2523–2538
Brca1, expression and tissue differentiation in mice (Lane et al.), 2712–2722
brlA, requirement for in *flbD* regulation of *Aspergillus* development (Wieser and Adams), 491–502
Brn-2, role in
  endocrine hypothalmus and pituitary gland development in mice (Schonemann et al.), 3122–3135
  neural development in mice (Nakai et al.), 3109–3121
Broad-Complex, enhancer-trap transposon targeting in *Drosophila* locus (Gonzy-Tréboul et al.), 1137–1148
BTB domain, in *Drosophila abrupt* gene (Hu et al.), 2936–2948
Budding yeast. *See Saccharomyces cerevisiae*

C

c-Abl tyrosine kinase, modulation of activity by Abi-2 (Dai and Pendergast), 2569–2582
Cactus, degradation and dorsal–ventral signaling (Belvin et al.), 783–793
Cadherin, cloning of *dachsous* from *Drosophila* (Clark et al.), 1530–1542
Caenorhabditis elegans
  bli-4 gene role encoding kex2/subtilisin-like endoproteases in development (Thacker et al.), 956–971
  cloning of *gld-1* (Jones and Schedl), 1491–1504
  lin-1 role in vulval induction (Beitel et al.), 3149–3162
  lin-25 role in development (Tuck and Greenwald), 341–357
  mek-2 role in vulval induction (Wu et al.), 742–755; (Kornfeld et al.), 756–768
  sexual regulation of *tra-1* (de Bono et al.), 155–167
  spe-26 gene role in spermatid formation (Varkey et al.), 1074–1086
  sur-2 role in *let-60 ras* signaling pathway (Singh and Han), 2251–2265
Calmodulin-dependent kinases, DAP kinase (Deiss et al.), 15–30
cAMP receptor protein, altered dimerization specificity mutant in *E. coli* (Joung et al.), 2986–2996
Cancer, rise of the genetic paradigm (Bishop), 1309–1315 Meeting Review
canoe, role in the *Notch* pathway (Miyamoto et al.), 612–625
cappuccino, *Drosophila* gene related to vertebrate *limb deformity* locus (Emmons et al.), 2482–2494
Carcinogens, and cancer (Bishop), 1309–1315 Meeting Review
Cardiac muscle, effects of *Nkx2-5* interruption in mice (Lyons et al.), 1654–1666
Cartilage matrix, defects in collagen II-deficient mice (Li et al.), 2821–2830
Caulobacter, developmentally regulated DNA replication (Marczynski et al.), 1543–1557
CCAAT-binding factor, cloning and characterization of CCAAT-binding factor subunit HAP5 (McNabb et al.), 47–58
CCAAT/enhancer binding protein family
  C/EBPα, C/EBPβ, and C/EBPδ in adipocyte differentiation (Yeh et al.), 168–181
  C/EBPβ induction of adipogenesis in mouse fibroblasts (Wu et al.), 2350–2363
Cdc2 kinase, phosphorylation of Dis1 (Nabeshima et al.), 1572–1585
Cdc42 protein
  interaction with Cla4 (Cvrčková et al.), 1817–1830
  target of Rga1p in the yeast pheromone pathway (Stevenson et al.), 2949–2963
Cdk. *See* Cyclin-dependent kinases
CDK4, p53 regulation of CDK4 translation (Ewen et al.), 204–217
C/EBP family. *See* CCAAT/enhancer binding protein family
Cell cycle
  arrest by TGF-β via Cdk inhibitors (Reynisdóttir et al.), 1831–1845
  CLN3 determination of *CLN2* transcription (Stuart and Wittenberg), 2780–2794
  cyclin A stability during embryogenesis (Howe et al.), 1164–1176
  E2F-1-mediated bypass of G_1 arrest (DeGregori et al.), 2873–2887
  effects of
    histone H4 mutations in yeast (Megee et al.), 1716–1727
    mutations in CSE4 (Stoler et al.), 573–586
  functional interaction between E2F-4 and p130 (Vairo et al.), 869–881
  identification of
    CLA4 in yeast (Cvrčková et al.), 1817–1830
    CDK inhibitor p57 (Lee et al.), 639–649, (Matsuoka et al.), 650–662
  inhibitors of mammalian G_1 cyclin-dependent kinases (Sherr and Roberts), 1149–1163 Review
  and oncogenesis (Verma et al.), 1289–1301 Meeting Review
  p53 regulation of CDK4 in TGF-β-induced G_1 arrest (Ewen et al.), 204–217
  p107 regulation (Beijerbergen et al.), 1340–1353
  phosphorylation of Dis1 by Cdc2 (Nabeshima et al.), 1572–1585
  Raf1 interaction with Cdc25 phosphatases (Galaktionov et al.), 1046–1058
  regulation of S phase by cyclin E/cdc2c kinase in *Drosophila* embryogenesis (Sauer et al.), 1327–1339
  role of
    Drosophila MCM2 gene (Treisman et al.), 1709–1715
    E2F during S phase in *Drosophila* embryogenesis (Duronio et al.), 1445–1455
    ORC in transcriptional silencing and chromosomal replication (Fox et al.), 911–924
    pyp1 and *pyp2* in fission yeast (Millar et al.), 2117–2130
Cells
  adhesion, role of
    c-Src in *src*−/− fibroblasts (Kaplan et al.), 1505–1517
    trophinin and tastin (Fukuda et al.), 1199–1210
  adhesiveness, changes in chick limb

buds by misexpression of *Hoxa-13* (Yokouchi et al.), 2509–2522
division, chromosome partitioning during sporulation in *B. subtilis* (Wu et al.), 1316–1326
fate, role of *lin-1* in *C. elegans* vulval induction (Beitel et al.), 3149–3162
growth, p53-dependent and independent regulation of p21 (Macleod et al.), 935–944
integrity, cell lysis in *PKC1*-mutant yeast (Kamada et al.), 1559–1571
migration
in β1-integrin null mice (Stephens et al.), 1883–1895; (Fässler and Meyer), 1896–1908
tracheal and midline glial cells role of *drifter*, *Drosophila* (Anderson et al.), 123–137
morphogenesis, role of Ste20-like kinase Cla4 in yeast (Cvrčková et al.), 1817–1830
proliferation
bypass of G_1 arrest by E2F-1 accumulation (DeGregori et al.), 2873–2887
effects of ADRPT gene knockout in mice (Wang et al.), 509–520
effects of *warts*, the *Drosophila* homolog of human myotonic dystrophy kinase (Justice et al.), 534–546
role of *Drosophila MCM2* gene (Treisman et al.), 1709–1715
sensing pathways for competence factors ComX and CSF (Solomon et al.), 547–558
shape
effects of *warts*, the *Drosophila* homolog of human myotonic dystrophy kinase (Justice et al.), 534–546
role of *DIMINUTO* in *Arabidopsis* cell elongation (Takahashi et al.), 97–107
signaling
and control of cell fate in *Dictyostelium* (Firtel), 1427–1444 Review
canoe role in the *Notch* pathway (Miyamoto et al.), 612–625
CsfX role in processing of pro-σ^E in *B. subtilis* (Londoño-Vallejo and Straiger), 503–508
lin-25 and *C. elegans* development (Tuck and Greenwald), 341–357
role of extracellular NAD(P)$^+$-containing protein in *Myxococcus* (Lee et al.), 2964–2973
Cellular differentiation. *See* Differentiation, cellular
Cellular patterning. *See* Patterning, cellular
CENP-A, homology of CSE4p (Stoler et al.), 573–586
Central nervous system
expression of *drifter* in midline glia and selected *Drosophila* neurons (Anderson et al.), 123–137
role of Pdm-1 and Pdm-2 in specification of *Drosophila* cell fate (Yeo et al.), 1223–1236
Centromere
difference in mechanism for gene suppression from telomeres (Wallrath and Elgin), 1263–1277
role of CSE4p in chromatin assembly at the kinetochore (Stoler et al.), 573–586
Cervicothoracic vertebrae, transformation in *hoxb-5* and *hoxb-6* mutant mice (Rancourt et al.), 108–122
Chaperone protein, dissassembling of the Mu transposase by ClpX chaperone (Levchenko et al.), 2399–2408
Charcot-Marie-Tooth 1A, association of mutations in *gas3/PMP22* (Fabbretti et al.), 1846–1856
Checkpoints, effects of histone H4 mutations (Megee et al.), 1716–1727
Chorioallantoic fusion, failure in VCAM-1-deficient embryos (Gurtner et al.), 1–14
Chromaffin cells, adrenergic, role of glucocorticoid receptor in development (Cole et al.), 1608–1621
Chromatid separation, influence of Dis1 (Nabeshima et al.), 1572–1585
Chromatin
association of position effect variegation with altered chromatin in *Drosophila* (Wallrath and Elgin), 1263–1277
CSE4p in chromatin assembly in *S. cerevisiae* (Stoler et al.), 573–586
-dependent *trans*-activation of HIV-1 enhancer by LEF-1 (Sheridan et al.), 2090–2104
dynamics in response to growth factor signaling by CTF-1 (Alevizopoulos et al.), 3051–3066
effects of amino acid substitutions in histones H3 and H4 (Kruger et al.), 2770–2779
histone H4 and genome integrity (Megee et al.), 1716–1727
HMG17 as chromatin-specific transcriptional coactivator (Paranjape et al.), 1978–1991
HSF access to heat shock elements (Shopland et al.), 2756–2769
in vivo distribution of GAGA protein on *Drosophila* heat shock genes (O'Brien et al.), 1098–1110
nucleosomal organization and transcriptional activity of the yeast *SNR6* locus (Marsolier et al.), 410–422
PR binding and open chromatin formation (Mymryk and Archer), 1366–1376
Chromosomes. *See also* Chromatid separation
instability, in *p53* mutant *Wnt-1* transgenic mice (Donehower et al.), 882–895
nondisjunction, effects of mutations in CSE4 (Stoler et al.), 573–586
partitioning, during sporulation in *B. subtilis* (Wu et al.), 1316–1326
rearrangement, regulation of Tn*10*/IS*10* transposition by IHF (Signon and Kleckner), 1123–1136
segregation
homologs of the *SIR2* silencing gene (*HST* genes) Brachmann et al.), 2888–2902
role of Dis1 in fission yeast (Nabeshima et al.), 1572–1585
SMC2 and mitotic chromosome structure (Strunnikov et al.), 587–599
structure, SMC2 and mitotic chromosome structure (Strunnikov et al.), 587–599
synapsis
in *dmc1* and *rad51* mutant yeast (Rockmill et al.), 2684–2695
localization of recombination proteins Rad51 and Lim15 to meiotic chromosomes (Terasawa et al.), 925–934
translocation, and oncogenesis (Verma et al.), 1289–1301 Meeting Review
X inactivation, DNA methylation and *XIST* expression (Beard et al.), 2325–2334
Ciliates. *See also* specific species
deletion-associated DNA breaks in *Tetrahymena* genomic rearrangement (Saveliev and Cox), 248–255
epigenetic regulation of IES excision in *Paramecium* (Duharcourt et al.), 2065–2077
Cip1. *See* p21
Circadian rhythms, in cyanobacterium *Synechococcus* (Liu et al.), 1469–1478
Circularization reaction, transposase-catalyzed (Polard and Chandler), 2846–2858
c-Jun amino-terminal kinase, activation by Raf (McCarthy et al.), 1953–1964
CKI. *See* Cyclin-dependent kinase inhibition
Cleavage–polyadenylation specificity factor
properties of 160-kD subunit (Murthy and Manley), 2672–2683
recognition of HIV-1 3′ processing enhancer (Gilmartin et al.), 72–83

CLN2, determination of transcription by *CLN3* (Stuart and Wittenberg), 2780–2794
CLN3, determination of *CLN2* transcription (Stuart and Wittenberg), 2780–2794
Clp family, dissassembling of the Mu transposase by ClpX (Levchenko et al.), 2399–2408
c-*myc* gene, effects of enhancers and core promoters on pol II pausing (Krumm et al.), 559–572
Coactivators, transcription activation via HMG-2 (Shykind et al.), 1354–1365
Coagulation, in fibrinogen-deficient mice (Suh et al.), 2020–2033
Coiled coil, in *E. coli* CRP (Joung et al.), 2986–2996
Col2a1 gene, effects of disruption in mice (Li et al.), 2821–2830
Cold sensitivity, suppression by overexpression of RbfA (Dammel and Noller), 626–637
Collagen II, effects of deficiency in mice (Li et al.), 2821–2830
Combinatorial control, transcriptional regulation by α2 homeo domain mutants (Vershon et al.), 182–192
ComX, sensing pathways for competence factors ComX and CSF (Solomon et al.), 547–558
Congenital cancer, rise of the genetic paradigm (Bishop), 1309–1315 Meeting Review
Conidiation, role of *flbD* in *Aspergillus* development (Wieser and Adams), 491–502
Cortactin, phosphorylation by *fyn* tyrosine kinase in keratinocyte differentiation (Calautti et al.), 2279–2291
CPSF. *See* Cleavage–polyadenylation specificity factor
Cranial neural crest. *See* Neural crest, cranial
CRP. *See* cAMP receptor protein
CSE4, chromosome nondisjunction and cell cycle arrest (Stoler et al.), 573–586
CSF, sensing pathways for competence factors ComX and CSF (Solomon et al.), 547–558
CsfX, role in signaling the processing of pro-σ^E in *B. subtilis* (Londoño-Vallejo and Straiger), 503–508
c-Src, role in cellular adhesion (Kaplan et al.), 1505–1517
CsgA, extracellular NAD(P)$^+$-containing protein in *Myxococcus* (Lee et al.), 2964–2973
CTF-1, *trans*-activation domain interacts with histone H3 (Alevizopoulos et al.), 3051–3066
Culmination, regulation by PKA in *Dictyostelium* (Firtel), 1427–1444 Review
Cyanobacteria, circadian orchestration of gene expression in *Synechococcus* (Liu et al.), 1469–1478
Cyc8, role of TPR motifs in Cyc8 protein–protein interactions (Tzamarias and Struhl), 821–831
Cyc8 (Ssn6)–Tup1 complex, TPR-motif mediation of Cyc8–Tup1 protein–protein interactions (Tzamarias and Struhl), 821–831
Cyclin A. *See* Cyclins
Cyclin E. *See* Cyclins
Cyclin-dependent kinases
  identification of CDK inhibitor p57 (Lee et al.), 639–649, (Matsuoka et al.), 650–662
  inhibition
    bypass of G_1 cdk inhibition by E2F-1 accumulation (DeGregori et al.) 2873–2887
    cell cycle arrest by TGF-β via Cdk inhibitors (Reynisdóttir et al.), 1831–1845
    p107 as inhibitor (Zhu et al.), 1740–1752
  inhibitors of mammalian G_1 cyclin-dependent kinases (Sherr and Roberts), 1149–1163 Review
  in p107 regulation (Beijerbergen et al.), 1340–1353
  regulation by p107 and p21 (Zhu et al.), 1740–1752
Cyclins
  CLN3 determination of *CLN2* transcription (Stuart and Wittenberg), 2780–2794
  cyclin A
    in *Drosophila* embryogenesis (Sauer et al.), 1327–1339
    stability during embryogenesis (Howe et al.), 1164–1176
  cyclin D1 deficiency, effects in mice (Fantl et al.), 2364–2372
  cyclin E
    /cdc2c kinase in *Drosophila* embryogenesis (Sauer et al.), 1327–1339
    coupling of E2F activity to G_1 control in *Drosophila* (Duronio and O'Farrell), 1456–1468
  G_1 cyclin turnover and nutrient uptake (Barral et al.), 399–409
  G_1 cyclin-dependent kinases, mammalian, inhibitors (Sherr and Roberts), 1149–1163 Review
  in p107 regulation (Beijerbergen et al.), 1340–1353
Cyl-1, effects of disruption in mice (Fantl et al.), 2364–2372
Cytogenetics, and cancer (Bishop), 1309–1315 Meeting Review
Cytokines, defects in IL-2 expression in Rel-deficient mice (Köntgen et al.), 1965–1977
Cytokinesis, role of Ste20-like kinase Cla4 in yeast (Cvrčková et al.), 1817–1830
Cytoplasm, streaming in *cappuccino* mutant *Drosophila* oocytes (Emmons et al.), 2482–2494
Cytoskeleton. *See* also Microtubule
  association of trophinin and tastin (Fukuda et al.), 1199–1210

D

dachsous, cloning from *Drosophila* (Clark et al.), 1530–1542
decapentaplegic, regulation of ventral repression of by NTF-1/Elf-1 (Huang et al.), 3177–3189
DER, *Drosophila* EGF receptor homolog activation by *spitz* (Schweitzer et al.), 1518–1529
Development. *See also* specific organisms and structures
  abnormalities in cyclin D1-deficient mice (Fantl et al.), 2364–2372
  allele-specific and total expression of imprinted genes in mouse (Szabó and Mann), 3097–3108
  Cactus protein degradation and dorsal–ventral signaling (Belvin et al.), 783–793
  cyclin A stability during (Howe et al.), 1164–1176
  duplication of zone of polarizing activity in polydactylous mutant mice (Masuya et al.), 1645–1653
  effects of
    ectopic expression of *rough sheath1* in maize (Schneeberger et al.), 2292–2304; Erratum, 2870
    fibrinogen gene disruption in mice (Suh et al.), 2020–2033
    group 4 *Hox* compound mutants in mice (Horan et al.), 1667–1677
  expression of *Brca1* and tissue differentiation in mice (Lane et al.), 2712–2722
  extracellular NAD(P)$^+$-containing protein in *Myxococcus* fruiting body formation (Lee et al.), 2964–2973
  gene trap capture of neural tube formation gene *jumonji* (Takeuchi et al.), 1211–1222
  heat-induced developmental defects in *Drosophila* (Welte et al.), 2240–2250
  initiation of *Myxococcus* development (Singer and Kaiser), 1633–1644
  lens, p53-dependent and independent apoptosis during (Pan and Griep), 2157–2169
  modification of Dishevelled in *Drosophila* development (Yanagawa et al.), 1087–1097
  nervous systems. *See* Nervous system development

in plasminogen-deficient mice (Bugge et al.), 794–807
plant. *See* Plant development
requirement for
BMP-4 during mouse development (Winnier et al.), 2105–2116
BMP-7 during in eye, kidney, and bone (Luo et al.), 2808–2820
BMP-7 during in mammalian kidney and eye (Dudley et al.), 2795–2807
role of
bli-4 gene in *C. elegans* development (Thacker et al.), 956–971
glucocorticoid receptor in mice (Cole et al.), 1608–1621
hoxb-5 and *hoxb-6* in mice (Rancourt et al.), 108–122
MHox in mouse skeletogenesis (Martin et al.), 1237–1249
Otx2 in development of rostral head (Matsuo et al.), 2646–2658
Pdm-1 and Pdm-2 in specification of *Drosophila* CNS cell fate (Yeo et al.), 1223–1236
VCAM-1 in umbilical cord and placenta formation (Gurtner et al.), 1–14
root. *See* Root development
use of enhancer traps and gene traps for study in *Arabidopsis* (Sundaresan et al.), 1797–1810
Dictyostelium
role of TagB, a transporter/serine protease, in prestalk specialization (Shaulsky et al.), 1111–1122
signaling and control of cell-fate decisions (Firtel), 1427–1444 Review
Differentiation
cellular
hematopoietic lineage determination by GATA-1 (Kulessa et al.), 1250–1262
HPV E7 reactivation of DNA replication in differentiated keratinocytes (Cheng et al.), 2335–2349
p53-dependent and independent regulation of p21 (Macleod et al.), 935-944
role of
drifter in differentiation of *Drosophila* tracheal and midline glial cells (Anderson et al.), 123–137
MHox in mouse skeletogenesis (Martin et al.), 1237–1249
Pdm-1 and Pdm-2 in specification of *Drosophila* CNS cell fate (Yeo et al.), 1223–1236
TagB, a transporter/serine protease, in *Dictyostelium* prestalk specialization (Shaulsky et al.), 1111–1122
macronuclear, epigenetic regulation of IES excision in *Paramecium* (Duharcourt et al.), 2065–2077
sperm, role of *C. elegans spe-26* gene in spermatid formation (Varkey et al.), 1074–1086
terminal, and expression of *Brca1* in mice (Lane et al.), 2712–2722
DIM1, 18S rRNA dimethylase in yeast (Lafontaine et al.), 2470–2481
Dimerization, altered dimerization specificity mutant of *E. coli* CRP (Joung et al.), 2986–2996
DIMINUTO, role in *Arabidopsis* cell elongation (Takahashi et al.), 97–107
Diphtheria toxin, heparin-binding epidermal growth factor as receptor (McCarthy et al.), 1953–1964
Disc morphogenesis, involvement of *dachsous* in *Drosophila* (Clark et al.), 1530–1542
Dishevelled protein, modification by Wingless signaling pathway in *Drosophila* development (Yanagawa et al.), 1087–1097
Dlx-2, null mutation leads to head development abnormalities in mice (Qiu et al.), 2523–2538
DMC1, encodes RecA homolog in yeast (Rockmill et al.), 2684–2695
DMcdc2c kinase, association with cyclin E in *Drosophila* embryogenesis (Sauer et al.), 1327–1339
DNA
bending, Lef-1-induced DNA bending and TCRα enhancer complex assembly (Giese et al.), 995–1008
binding, DNA recognition by STAT proteins (Horvath et al.), 984–994
domains, novel domain in STAT proteins (Horvath et al.), 984–994
protein, role of RFX5 mutation in bare lymphocyte syndrome (Steimle et al.), 1021–1032
specificity, by α2 homeo domain mutants (Vershon et al.), 182–192
cleavage, activity of FLB recombinase in yeast (Qian and Cox), 2053–2064
damage
histone H4 and genome integrity (Megee et al.), 1716–1727
p53-dependent and independent regulation of p21 (Macleod et al.), 935-944
deletion, deletion-associated DNA breaks in *Tetrahymena* genomic rearrangement (Saveliev and Cox), 248–255
-dependent protein kinase, as inhibitor of RNA polymerase I transcription (Kuhn et al.), 193–203
gyrase, role in DNA unlinking during replication in *E. coli* (Zechiedrich and Cozzarelli), 2859–2869
hairpin, as intermediates in *V(D)J* recombination (Ramsden and Gellert), 2409–2420
integrity, histone H4 and genome integrity (Megee et al.), 1716–1727
methylation, and *XIST* expression (Beard et al.), 2325–2334
repair, effects of ADRPT gene knockout in mice (Wang et al.), 509–520
replication
induction by HPV E7 in spinous cells (Cheng et al.), 2335–2349
role of
cyclin E and E2F in *Drosophila* (Duronio and O'Farrell), 1456–1468
Drosophila MCM2 gene (Treisman et al.), 1709–1715
ORC in chromosomal replication (Fox et al.), 911–924
topoisomerase IV and DNA gyrase in *E. coli* (Zechiedrich and Cozzarelli), 2859–2869
timing, in the human *SNRPN* gene region (Gunaratne et al.), 808–820
transposition, enhancer-independent variants of phage Mu transposase (Yang et al.), 2545–2555
DNA-PK. *See* DNA-dependent protein kinase
Dominant-negative mutants, disruption of RB function by coexpression of its C pocket (Welch and Wang), 31–46
Dorsal/ventral axis. *See* Axis, dorsal/ventral
Dorsal/ventral patterning. *See* Patterning, dorsal/ventral
doublesex gene
alternative splicing in pre-mRNA (Lynch and Maniatis), 284–293
binding to *dsx*RE purine-rich enhancer sequence (Lynch and Maniatis), 284–293
integration of sex- and tissue-specific regulation (An and Wensink), 256–266
purine-rich enhancer sequence (PRE), (Lynch and Maniatis), 284–293
synergistic interactions in a splicing enhancer (Lynch and Maniatis), 284–293
Double-strand break repair, in *V(D)J* recombination (Ramsden and Gellert), 2409–2420
Drosophila
activation of dorsal by Toll and tube (Norris and Manley), 358–369
alternative splicing of *doublesex* pre-mRNA (Lynch and Maniatis), 284–293
Cactus protein degradation and dor-

sal–ventral signaling (Belvin et al.), 783–793
characterization of *abrupt* gene, involved in control of neuromuscular connections (Hu et al.), 2936–2948
cloning and characterization of *homeless* (Gillespie and Berg), 2495–2508
control of *Enhancer of split* Complex by Suppressor of Hairless (Lecourtois and Schweisguth), 2598–2608; (Bailey and Posakony), 2609–2622
cyclin E as target of E2F (Duronio and O'Farrell), 1456–1468
cyclin E/cdc2c kinase in embryogenesis (Sauer et al.), 1327–1339
dachsous control of imaginal disc morphogenesis (Clark et al.), 1530–1542
effects of *warts*, the homolog of human myotonic dystrophy kinase (Justice et al.), 534–546
enabled, dosage-sensitive suppressor of mutations in Abl (Gertler et al.), 521–533
enhancer-trap transposon targeting of the *Broad-Complex* locus (Gonzy-Tréboul et al.), 1137–1148
essential role of MEF2 in myogenesis (Bour et al.), 730–741
heat-induced developmental defects (Welte et al.), 2240–2250
integration of sex- and tissue-specific regulation (An and Wensink), 256–266
in vivo distribution of GAGA protein on *Drosophila* heat shock genes (O'Brien et al.), 1098–1110
investigation of position effect variegation by use of a P element containing *white* and *hsp26* genes (Wallrath and Elgin), 1263–1277
lethal of scute and mesoderm development (Carmena et al.) 2373–2383
modification of Dishevelled by the Wingless signaling pathway (Yanagawa et al.), 1087–1097
molecular isolation of *cappuccino* (Emmons et al.), 2482–2494
negative regulator of P element premRNA splicing (Siebel et al.), 269–283
promotion of neural cell fates by *scratch* (Roark et al.), 2384–2398
regulation of
tailless by *torso response element* (Liaw et al.), 3163–3176
ventral repression of *decapentaplegic* by NTF-1/Elf-1 (Huang et al.), 3177–3189
role of
canoe in the *Notch* pathway (Miyamoto et al.), 612–625
drifter in cell differentiation and migration (Anderson et al.), 123–137
E2F in G_1–S progression (Duronio et al.), 1445–1455
head involution defective gene in apoptosis (Grether et al.), 1694–1708
Pdm-1 and Pdm-2 in specification of *Drosophila* CNS cell fate (Yeo et al.), 1223–1236
similarities between *trunk* and *spätzle* (Casanova et al.), 2539–2544
soma-specific alternative splicing factor, PSI (Siebel et al.), 269–283
spitz triggering of the DER signaling cascade (Schweitzer et al.), 1518–1529
stabilization of muscle attachment in embryos by masquerade protein (Murugasu-Oei et al.), 139–154
Dual specificity kinase/phosphatase. *See* Kinase/phosphatase, dual specificity

E

E1A, relief of YY1 transcriptional repression by (Lee et al.), 1188–1198; Addendum, 1948–1949
E2F
bypass of G_1 arrest by E2F-1 accumulation (DeGregori et al.), 2873–2887
functional interaction between E2F-4 and p130 (Vairo et al.), 869–881
interaction with cyclin E in G_1 to S transition in *Drosophila* (Duronio and O'Farrell), 1456–1468
in p107 regulation (Beijerbergen et al.), 1340–1353
role in G_1–S progression during *Drosophila* embryogenesis (Duronio et al.), 1445–1455
E7, induction of host DNA replication in spinous cells (Cheng et al.), 2335–2349
EGF receptor, DER activation by *spitz* in *Drosophila* (Schweitzer et al.), 1518–1529
eIF-3. *See* Translation initiation factors
Elf-1
binding to *torso* response element (Liaw et al.), 3163–3176
regulation of ventral repression of *decapentaplegic* (Huang et al.), 3177–3189
Embryo, biallelic expression of imprinted genes in mouse germ line (Szabó and Mann), 1857–1868
Embryo implantation. *See* Implantation
Embryogenesis
activation of FGF-4 expression by Sox2 and Oct-3 in mice (Yuan et al.), 2635–2645
cyclin A stability during (Howe et al.), 1164–1176
cyclin E/cdc2c kinase in *Drosophila* (Sauer et al.), 1327–1339
disruption of BMP signal and neural induction in *Xenopus* (Hawley et al.), 2923–2935
requirement of
BMP-4 for mouse development (Winnier et al.), 2105–2116
E2F for S phase in *Drosophila* (Duronio et al.) 1445–1455
role of
cyclin E and E2F in *Drosophila* (Duronio and O'Farrell), 1456–1468
MHox in mouse skeletogenesis (Martin et al.), 1237–1249
Embryonic ventral ectoderm, determination by *spitz* in *Drosophila* (Schweitzer et al.), 1518–1529
enabled
Abelson tyrosine kinase substrate (Gertler et al.), 521–533
dosage-sensitive suppressor of mutations in *Drosophila* Abl (Gertler et al.), 521–533
Endoderm, extraembryonic, in β1-integrin null mice (Stephens et al.), 1883–1895
Endreduplication, regulation by cyclin E/cdc2c kinase in *Drosophila* embryogenesis (Sauer et al.), 1327–1339
Enhancer
effects of deletion of *H19* enhancers (Leighton et al.), 2079–2089
elements, regulation of *achaete* and *scute* by shared enhancer-like elements (Gómez-Skarmeta et al.), 1869–1882
specific stimulation of catalytic activity of Mu transposase (Yang et al.), 2545–2555
trap
targeting of the *Broad-Complex* locus (Gonzy-Tréboul et al.), 1137–1148
use for study of *Arabidopsis* development (Sundaresan et al.), 1797–1810
Enhancer of split, disruption of mammalian homolog in mice (Ishibashi et al.), 3136–3148
Enhancer of split Complex
lack of expression in *Suppressor of Hairless* mutant *Drosophila* (Lecourtois and Schweisguth), 2598–2608
transcriptional activation by Suppressor of Hairless (Bailey and Posakony), 2609–2622
Enzymatic activity, effects of telomerase

RNA mutations (Gilley et al.), 2214–2226
Epidermis, dominant-negative RARα and alteration of epidermal barrier (Imakado et al.), 317–329
homeostasis, roles of TGF-β1 and TβRII (Cui et al.), 945–955
hyperplasia, effects of ADRPT gene knockout in mice (Wang et al.), 509–520
Epithelium
effects of elevated levels of LEF-1 (Zhou et al.), 700–713
hypertrophy in *Drosophila warts* mutants (Justice et al.), 534–546
mesenchymal interactions, role of *MHox* in mouse skeletogenesis (Martin et al.), 1237–1249
Erythroid precursor cells, overexpression and correction of galactosialidosis in mice (Zhou et al.), 2623–2634
Escherichia coli
altered dimerization specificity mutant of CRP (Joung et al.), 2986–2996
autoregulation of *rne* gene expression (Jain and Belasco), 84–96
Cpx regulation of *degP* transcription (Danese et al.), 387–398
inhibition of viral gene expression by RNase P (Liu and Altman), 471–480
novel σ^{54} transcription cycle (Tintut et al.), 2305–2313
Ets-1
cooperation with PEBP2α in binding the TCRα enhancer (Giese et al.), 995–1008
role in *trans*-activation of HIV-1 enhancer (Sheridan et al.), 2090–2104
ETS-domain proteins, encoded by *C. elegans lin-1* (Beitel et al.), 3149–3162
Exonucleases, in maturation of snoRNAs (Kiss and Filipowicz), 1411–1124
Exonucleolytic degradation, as function of poly(A)-binding protein (Caponigro and Parker), 2421–2432
Expression cloning, identification of RFX5, a novel DNA-binding regulatory factor (Steimle et al.), 1021–1032
Extra toes, and duplication of skeletal digit patterns in mice (Masuya et al.), 1645–1653
Extracellular ligands, similarities between *trunk* and *spätzle* (Casanova et al.), 2539–2544
Eye development, requirement for BMP-7 (Dudley et al.), 2795–2807; (Luo et al.), 2808–2820. *See also* Lens development

F

FAK. *See* Focal adhesions, tyrosine kinase
Fat, similarity to *dachsous* from *Drosophila* (Clark et al.), 1530–1542
Fertility, normal sexual maturity in plasminogen-deficient mice (Bugge et al.), 794–807
FGF-4. *See* Fibroblast growth factor-4
Fibrinogen, effects of gene disruption in mice (Suh et al.), 2020–2033
Fibroblast growth factor-4
activation of expression by Sox2 and Oct-3 (Yuan et al.), 2635–2645
ectopic expression in polydactylous mutant mice (Masuya et al.), 1645–1653
Fibronectin, enhanced spreading of *src*−/− fibroblasts by c-Src (Kaplan et al.), 1505–1517
Fission yeast. *See Schizosaccharomyces pombe*
FLB recombinase, asymmetry in active complexes in yeast (Qian and Cox), 2053–2064
flbD, role in *Aspergillus* development (Wieser and Adams), 491–502
Floor plate, expression of *Sonic hedgehog* (Münsterberg et al.), 2911–2922
FLP recombinase, use in deletion of 5′HS2 of the murine β-globin LCR (Fiering et al.), 2203–2213
Focal adhesions
association with activated c-Src in *src*−/− fibroblasts (Kaplan et al.), 1505–1517
tyrosine kinase, regulation by Fyn in the brain (Grant et al.), 1909–1921
Forebrain, abnormal differentiation in *Dlx-2* null mice (Qiu et al.), 2523–2538
Forelimbs, role for *hoxb-5* in specifying limb position in mice (Rancourt et al.), 108–122
Fruiting body formation, role of extracellular NAD(P)$^+$-containing protein in *Myxococcus* (Lee et al.), 2964–2973
ftz. *See fushi tarazu*
Fungi. *See also Saccharomyces cerevisiae; Schizosaccharomyces pombe*
role of *flbD* in *Aspergillus* development (Wieser and Adams), 491–502
fushi tarazu, heat-induced mutations in *Drosophila* (Welte et al.), 2240–2250
Fyn tyrosine kinase
regulation of FAK in the brain (Grant et al.), 1909–1921
role in keratinocyte differentiation (Calautti et al.), 2279–2291

G

G_1 arrest, release from of p130-mediated arrest by E2F-4 (Vairo et al.), 869–881
G_1 cyclins. *See* Cyclins
gadd45, role in growth-factor modulation of p53-mediated apoptosis (Canman et al.), 600–611
GAGA factor
binding to *torso* response element (Liaw et al.), 3163–3176
and HSF access to heat shock elements (Shopland et al.), 2756–2769
in vivo distribution on *Drosophila* heat shock genes (O'Brien et al.), 1098–1110
Galactosialidosis, mouse model (Zhou et al.), 2623–2634
GAPs. *See* GTPase-activating proteins
gas3 gene, induction of apoptosis by overexpression (Fabbretti et al.), 1846–1856
Gastrulation, *Bmpr* is essential during mouse embryogenesis (Mishina et al.), 3027–3037
GATA-1, hematopoietic lineage determination by GATA-1 (Kulessa et al.), 1250–1262
GBF, role in aggregation to cell-type differentiation in *Dictyostelium* (Firtel), 1427–1444 Review
GCN4, characterization of *GCN4* translational repressor, GCD10 (Garcia-Barrio et al.), 1781–1796
Gene expression
of imprinted genes during early mouse development (Szabó and Mann), 3097–3108
processing of snoRNAs from pre-mRNA introns (Kiss and Filipowicz), 1411–1124
Gene inactivation
effects of
ADRPT gene disruption in mice (Wang et al.), 509–520
plasminogen disruption in mice (Bugge et al.), 794–807
inhibition of viral gene expression by RNase P (Liu and Altman), 471–480
role of *MHox* in mouse skeletogenesis (Martin et al.), 1237–1249
Gene knockouts, in mice
ADRPT gene (Wang et al.), 509–520
β1-integrin (Stephens et al.), 1883–1895; (Fässler and Meyer), 1896–1908
Bmp-4 (Winnier et al.), 2105–2116
Bmp-7 (Dudley et al.), 2795–2807; (Luo et al.), 2808–2820
Brn-2 (Schonemann et al.), 3122–3135
c-*rel* (Köntgen et al.), 1965–1977
cyclin D1 (Fantl et al.), 2364–2372
fibrinogen gene (Suh et al.), 2020–2033
glucocorticoid receptor (Cole et al.), 1608–1621

HES-1 gene, mammalian (Ishibashi et al.), 3136–3148
MHox (Martin et al.), 1237–1249
pituitary glycoprotein hormone α-subunit gene (Kendall et al.), 2007–2019
plasminogen (Bugge et al.), 794–807
progesterone receptor (Lydon et al.), 2266–2278
Gene regulation, autoregulation of *rne* gene expression (Jain and Belasco), 84–96
Gene targeting
of *Bmp-4* in mice (Winnier et al.), 2105–2116
deletion of 5′HS2 of the murine β-globin LCR (Fiering et al.), 2203–2213
disruption of
β1-integrin in mice (Stephens et al.), 1883–1895; (Fässler and Meyer), 1896–1908
BMP-7 in mice (Dudley et al.), 2795–2807; (Luo et al.), 2808–2820
Brn-2 genomic locus in mice (Schonemann et al.), 3122–3135
IκBα in mice (Beg et al.), 2736–2746
mammalian *HES-1* gene (Ishibashi et al.), 3136–3148
progesterone receptor gene in mice (Lydon et al.), 2266–2278
effects of
cyclin D1 deficiency in mice (Fantl et al.), 2364–2372
fibrinogen gene disruption in mice (Suh et al.), 2020–2033
MRF4 inactivation (Zhang et al.), 1388–1399
Nkx2-5 interruption in mice (Lyons et al.), 1654–1666
pituitary glycoprotein hormone α-subunit gene disruption in mice (Kendall et al.), 2007–2019
for disruption of *hoxb-5* and *hoxb-6* in mice (Rancourt et al.), 108–122
to study role of glucocorticoid receptor in devloping mice (Cole et al.), 1608–1621
Gene trap
capture of neural tube formation gene *jumonji* (Takeuchi et al.), 1211–1222
study of *Arabidopsis* development (Sundaresan et al.), 1797–1810
Genetic competence, sensing pathways for competence factors ComX and CSF (Solomon et al.), 547–558
Genetic imprinting. See Imprinting, genetic
Genetic suppressors, cloning and characterization of *S. cerevisiae SRB* genes (Hengartner et al.), 897–910
Genetics
genetic strategy for analyzing dimer formation of *E. coli* CRP (Joung et al.), 2986–2996
implications for imprinting mechanisms in mouse (Szabó and Mann), 3097–3108
Genomic imprinting. *See Imprinting, genomic*
Genomic instability, in *p53* mutant *Wnt-1* transgenic mice (Donehower et al.), 882–895
Genomic rearrangement
excision of IES in *Paramecium* (Duharcourt et al.), 2065–2077
role of deletion-associated DNA breaks in *Tetrahymena* (Saveliev and Cox), 248–255
Germ-line development, *gld-1* tumor suppressor gene essential for oogenesis in *C. elegans* (Jones and Schedl), 1491–1504
Germ-line transcriptional control, cytotype control of P-element transposition (Roche et al.), 1278–1288
gld-1, tumor suppressor gene essential for oogenesis in *C. elegans* (Jones and Schedl), 1491–1504
GLGF/DHR motif
in *Drosophila* Dishevelled (Yanagawa et al.), 1087–1097
in the *Drosophila canoe* gene product (Miyamoto et al.), 612–625
Glia, role of *drifter* in migration and differentiation of *Drosophila* midline glial cells (Anderson et al.), 123–137
Glucocorticoids
and adrenal and lung development in mice (Cole et al.), 1608–1621
receptor, requirement for adrenal and lung development in mice (Cole et al.), 1608–1621
GnRH neurons, normal migration in pituitary glycoprotein hormone α-subunit null mice (Kendall et al.), 2007–2019
goosecoid, promoter contains growth factor-response elements in *Xenopus* (Watabe et al.), 3038–3050
GR. *See* Glucocorticoids, receptor
grainyhead gene product, binding to *torso* response element (Liaw et al.), 3163–3176
Granulopoiesis, in IκBα-deficient mice (Beg et al.), 2736–2746
GroEL, role of *R. meliloti groELc* in *nod* regulation (Ogawa and Long), 714–729
Growth
arrest, growth-factor modulation of p53-mediated apoptosis versus growth arrest (Canman et al.), 600–611
control, effects of deletion of *H19* enhancers (Leighton et al.), 2079–2089
factors, TGF-β induces activity of proline-rich domain of CTF-1 (Alevizopoulos et al.), 3051–3066
suppression, induction of apoptosis by *trans*-activation deficient p53 in HeLa cells (Haupt et al.), 2170–2183
triggering of apoptosis by p53-mediated transcription (Sabbatini et al.), 2184–2192
GRR1 gene, role in cyclin turnover and nutrient uptake in yeast (Barral et al.), 399–409
GSG, conserved domain in GLD-1 of *C. elegans* (Jones and Schedl), 1491–1504
GTPase
-activating proteins, Rho GAP activity in the yeast pheromone pathway (Stevenson et al.), 2949–2963
activity, interaction of Cla4 with Cdc42 in yeast (Cvrčková et al.), 1817–1830
Guanosine pentaphosphate and tetraphosphates, initiation of *Myxococcus* development (Singer and Kaiser), 1633–1644

H

H19, effects on expression by deletion of *H19* enhancers (Leighton et al.), 2079–2089
Hair follicle, role of LEF-1 in morphogenesis (Zhou et al.), 700–713
hairy, disruption of mammalian homolog in mice (Ishibashi et al.), 3136–3148
hairy and *Enhancer of split* homolog, disruption of mammalian *HES-1* gene in mice (Ishibashi et al.), 3136–3148
HAP5, cloning and characterization of CCAAT-binding factor subunit HAP5 (McNabb et al.), 47–58
head involution defective gene, role in programmed cell death in *Drosophila* (Grether et al.), 1694–1708
Heart
defects, in *Nkx2-5* mutant mice (Lyons et al.), 1654–1666
myogenesis, essential role of MEF2 in *Drosophila* (Bour et al.), 730–741
Heat shock
activation of PKC pathway in yeast during (Kamada et al.), 1559–1571
genes, in vivo distribution of GAGA protein on *Drosophila* genes (O'Brien et al.), 1098–1110
heat-induced developmental defects in *Drosophila* (Welte et al.), 2240–2250

proteins, regulation of *degP* transcription in *E. coli* (Danese et al.), 387–398
Hedgehog. *See Sonic hedgehog*
Helix–loop–helix proteins, basic
β2, novel bHLH activator of the insulin gene (Naya et al.), 1009–1019
inactivation of *MRF4* (Zhang et al.), 1388-1399
Hematopoietic cell differentiation, lineage determination by GATA-1 (Kulessa et al.), 1250–1262
hemH, and coupling of replication to transcription in *Caulobacter* (Marczynski et al.), 1543–1557
Hemimelic extra toes, and duplication of skeletal digit patterns in mice (Masuya et al.), 1645–1653
Hemostasis, in fibrinogen-deficient mice (Suh et al.), 2020–2033
Heparin-binding epidermal growth factor, induction of expression by Raf and Ras oncogenes (McCarthy et al.), 1953–1964
Herpes simplex virus
inhibition of viral gene expression by RNase P (Liu and Altman), 471–480
thymidine kinase gene, use in characterization of intron-independent gene expression (Liu and Mertz), 1766–1780
VP16-associated protein HCF (Wilson et al.), 2445–2458
HES gene. *See hairy* and *Enhancer of split* homolog
Heterochromatin
association of position effect variegation with altered chromatin in *Drosophila* (Wallrath and Elgin), 1263–1277
factors affecting position effects at fission yeast centromeres (Allshire et al.), 218–233
Heteroduplex template, used to test requirement for NTRC or ATP hydrolysis in bacterial transcriptional activation (Wedel and Kustu), 2042–2052
hid gene. *See head involution defective* gene
High mobility group proteins
chromatin-dependent *trans*-activation of HIV-1 enhancer by LEF-1 (Sheridan et al.), 2090–2104
17, role as chromatin-specific transcriptional coactivator (Paranjape et al.), 1978–1991
transcriptional activation via HMG-2 (Shykind et al.), 1354–1365
Histones
effects of amino acid substitutions in H3 and H4 (Kruger et al.), 2770–2779
H4 and genome integrity (Megee et al.), 1716–1727
homology of CSE4p to histone H3 (Stoler et al.), 573–586
interaction with *trans*-activation domain of CTF-1 (Alevizopoulos et al.), 3051–3066
nucleosomal organization and transcriptional activity of the yeast *SNR6* locus (Marsolier et al.), 410–422
nucleosome positioning on the MMTV LTR (Fragoso et al.), 1933–1947
HIV. *See* Human immunodeficiency virus
HMG proteins. *See* High mobility group proteins
hnRNP L, role in intron-independent gene expression (Liu and Mertz), 1766–1780
hnRNP F in neural-specific splicing (Min et al.), 2659–2671
Holliday structure, as template for FLB recombinase in yeast (Qian and Cox), 2053–2064
homeless, required for RNA localization in *Drosophila* oogenesis (Gillespie and Berg), 2495–2508
Homeo box genes. *See also* Homeo box proteins; Homeo domain proteins
disruption of *hoxb-5* and *hoxb-6* in mice (Rancourt et al.), 108–122
effects of
ectopic expression of *rough sheath1* in maize (Schneeberger et al.), 2292–2304; Erratum, 2870
group 4 *Hox* compound mutants (Horan et al.), 1667–1677
Nkx2-5 interruption in mice (Lyons et al.), 1654–1666
enhancement of hematopoietic stem cell self-renewal by *HOXB4* (Sauvageau et al.), 1753–1765
role of
Dlx-2 in vertebrate head development (Qiu et al.) 2523-2538
MHox in mouse skeletogenesis (Martin et al.), 1237–1249
Otx2 in development of rostral head (Matsuo et al.), 2646–2658
Homeo box proteins. *See also* Homeo domain proteins
cooperative binding by Pbx and Hox proteins (Chang et al.), 663–674
Homeo domain proteins
cooperative binding by Pbx and Hox proteins (Chang et al.), 663–674
homology of Abi-2 amino terminus (Dai and Pendergast), 2569–2582
Ssn6 interaction with α2 (Smith et al.), 2903–2910
transcriptional regulation by α2 mutants (Vershon et al.), 182–192
Homeotic transformations
disruption of *hoxb-5* and *hoxb-6* in mice (Rancourt et al.), 108–122
effects of group 4 *Hox* compound mutants (Horan et al.), 1667–1677
induced by misexpression of *Hoxa-13* (Yokouchi et al.), 2509–2522
Homologous recombination. *See* Recombination, homologous
Hox proteins. *See* Homeo box proteins
Hox genes. *See* Homeo box genes
Hoxa-13, cartilage homeotic transformation in chick limb buds (Yokouchi et al.), 2509–2522
HPV. *See* Papillomavirus, human
HS3, synergistic regulation of human β-globin gene switching (Bungert et al.), 3083–3096
HS4, synergistic regulation of human β-globin gene switching (Bungert et al.), 3083–3096
HSF, access to heat shock elements (Shopland et al.), 2756–2769
hsp26, investigation of position effect variegation by use of a P element containing *white* and *hsp26* genes (Wallrath and Elgin), 1263–1277
HST genes. *See SIR2* genes
Human immunodeficiency virus
distances between active sites in IN–DNA complexes (Kukolj and Skalka), 2556–2567
type-1
chromatin-dependent *trans*-activation by LEF-1 (Sheridan et al.), 2090–2104
mRNA 3′-processing enhancer (Gilmartin et al.), 72–83
poly(A) site selection in provirus (Ashe et al.), 3008–3025
Human papillomavirus. *See* Papillomavirus, human
Hx. See Hemimelic extra toes
Hypogonadism, in pituitary glycoprotein hormone α-subunit null mice (Kendall et al.), 2007–2019
Hypothyroidism, in pituitary glycoprotein hormone α-subunit null mice (Kendall et al.), 2007–2019

I

IES. *See* Internal eliminated sequence
IFN-α. *See* Interferon-α
IHF, regulation of Tn*10*/IS*10* transposition (Signon and Kleckner), 1123–1136
IκB
effects of IκBα deficiency in mice (Beg et al.), 2736–2746
protein degradation of homolog Cactus and dorsal–ventral signaling (Belvin et al.), 783–793
regulation of NFκB (Verma et al.), 2723–2735, Review
targeting of IκBα to the ubiquitin–proteasome pathway (Chen et al.) 1586–1597

IL-3, growth-factor modulation of p53-mediated apoptosis (Canman et al.), 600–611
Immediate early genes, binding of RXR–NGFI-B/NURR1 heterodimers to retinoic acid response elements (Perlmann and Jansson), 769–782
Immunoglobulin
heavy-chain enhancer, binding of Bright protein (Herrscher et al.), 3067–3082
λ genes, regulation by Pu.1-dependent transcriptional activator, Pip (Eisenbeis et al.), 1377–1387
light-chain locus, used to study double-strand break repair in *V(D)J* recombination (Ramsden and Gellert), 2409–2420
transcription, cloning of Bright, a B cell-specific *trans*-activator (Herrscher et al.), 3067–3082
Implantation
of β1-integrin null mice (Stephens et al.), 1883–1895; (Fässler and Meyer), 1896–1908
role of trophinin and tastin in embryo implantation (Fukuda et al.), 1199–1210
Imprinting
genetic, replication timing in the human imprinted Prader–Willi syndrome region (Gunaratne et al.), 808–820
genomic
allele-specific and total expression of imprinted genes in mouse (Szabó and Mann), 3097–3108
biallelic expression of imprinted genes in mouse germ line (Szabó and Mann), 1857–1868
effects of deletion of *H19* enhancers (Leighton et al.), 2079–2089
regulation by gametic and embryonic processes (Chaillet et al.), 1177–1187
replication timing in the human imprinted Prader–Willi syndrome region (Gunaratne et al.), 808–820
parental, replication timing in the human imprinted Prader–Willi syndrome region (Gunaratne et al.), 808–820
Indole-3-acetic acid, in *Arabidopsis* lateral root formation (Celenza et al.), 2131–2142
Inhibition, lateral, in *Suppressor of Hairless* mutant *Drosophila* (Lecourtois and Schweisguth), 2598–2608
Ink4B. *See* p15
Insertional mutagenesis. *See* Mutagenesis, insertion
Insulin gene, BETA2, novel bHLH activator of the insulin gene (Naya et al.), 1009–1019
Insulin-like growth factor II, effects on expression by deletion of *H19* enhancers (Leighton et al.), 2079–2089
Integrase, enhanced and coordinated processing of synapsed viral DNA ends in vitro (Kukolj and Skalka), 2556–2567
Integrated recombination. *See* Recombination, integrated
Interferon-α, role of DAP-1 and DAP kinase in α-interferon-induced cell death (Deiss et al.), 15–30
Interferon regulatory factor family, identification of Pu.1-dependent transcriptional activator, Pip (Eisenbeis et al.), 1377–1387
Internal eliminated sequence, epigenetic regulation of excision in *Paramecium* (Duharcourt et al.), 2065–2077
Introns
processing of snoRNAs from pre-mRNA introns (Kiss and Filipowicz), 1411–1424
requirement for pre-mRNA processing (Liu and Mertz), 1766–1780
IRF family. *See* Interferon regulatory factor family
IS*10*, regulation of Tn*10* transposition by IHF (Signon and Kleckner), 1123–1136
IS*911*, transposase-catalyzed single-stranded DNA circularization reaction (Polard and Chandler), 2846–2858

J

JNK. *See* c-Jun amino-terminal kinase
jumonji, gene trap capture of neural tube formation gene (Takeuchi et al.), 1211–1222

K

Kelch repeats, in the *C. elegans spe-26* gene product (Varkey et al.), 1074–1086
Keratin gene regulation, role of LEF-1 (Zhou et al.), 700–713
Keratinocytes
differentiation, role of *fyn* tyrosine kinase (Calautti et al.), 2279–2291
TGF-β1 and TβRII in epidermal homeostasis (Cui et al.), 945–955
KEX2, role of *bli-4* gene encoding kex2/subtilisin-like endoproteases in *C. elegans* development (Thacker et al.), 956–971
KH domain, in GLD-1 protein of *C. elegans* (Jones and Schedl), 1491–1504
Kidney, requirement for BMP-7 during development (Dudley et al.), 2795–2807; (Luo et al.), 2808–2820
Kinase-independent mechanism, c-Src enhancement of *src−/−* fibroblast spreading (Kaplan et al.), 1505–1517
Kinase/phosphatase, dual specificity, regulation of ventral repression of *decapentaplegic* by NTF-1/Elf-1 (Huang et al.), 3177–3189
Kip1. *See* p27
Knockouts. *See* Gene knockouts
Ku, as subunit of DNA-PK (Kuhn et al.), 193–203

L

LAP. *See* Liver-enriched transcriptional activator protein
Lateral inhibition. *See* Inhibition, lateral
LCR. *See* Locus control region
Leaf development, effects of ectopic expression of *rough sheath1* in maize (Schneeberger et al.), 2292–2304; Erratum, 2870
Learning and memory, impairments in FAK signaling (Grant et al.), 1909–1921
LEF-1. *See* Lymphoid enhancer-binding factor 1
Lens, development, p53-dependent and independent apoptosis during in mice (Pan and Griep), 2157–2169
lethal of scute, and mesoderm development in *Drosophila* (Carmena et al.) 2373–2383
Leukemia, suppression of Abelson leukemia virus-transforming activity by overexpression of Abi-1 (Shi et al.), 2583–2597
Lily, localization of recombination proteins Rad51 and Lim15 to meiotic chromosomes (Terasawa et al.), 925–934
LIM domains, in yeast GAP Rga1p (Stevenson et al.), 2949–2963
Lim15, localization of recombination protein Rad51 to meiotic chromosomes (Terasawa et al.), 925–934
Limb
bud, misexpression of *Hoxa-13* in chick (Yokouchi et al.), 2509–2522
morphogenesis, duplication of zone of polarizing activity in polydactylous mutant mice (Masuya et al.), 1645–1653
lin-1, role in *C. elegans* vulval induction (Beitel et al.), 3149–3162

lin-25, role in *C. elegans* development (Tuck and Greenwald), 341–357
LIP. *See* Liver-enriched transcriptional inhibitory protein
Lipids, absence of lipid multilamellar structures in mice expressing dominant-negative RARα (Imakado et al.), 317–329
Liver-enriched transcriptional activator protein, active form of C/EBPβ in adipocyte differentiation (Yeh et al.), 168–181
Liver-enriched transcriptional inhibitory protein, inhibitory form of C/EBPβ in adipocyte differentiation (Yeh et al.), 168–181
Localized RNA, role of *homeless* in *Drosophila* oogenesis (Gillespie and Berg), 2495–2508
Locus control region
  deletion of 5′HS2 of the murine β-globin (Fiering et al.), 2203–2213
  role of hypersensitive site elements in human β-globin gene switching (Bungert et al.), 3083–3096
Long-term potentiation, impairments in FAK signaling (Grant et al.), 1909–1921
LTP. *See* Long-term potentiation
Luciferase, reporter of gene expression in *Synechococcus* (Liu et al.), 1469–1478
Lung maturation, role of glucocorticoid receptor (Cole et al.), 1608–1621
luxAB, bacterial luciferase genes (Liu et al.), 1469–1478
LXR, LXRα, a molecluar switch for retinoid X receptors (Willy et al.), 1033–1045
Lymphocyte proliferation, activation defects in Rel-deficient mice (Köntgen et al.), 1965–1977
Lymphoid enhancer-binding factor 1
  chromatin-dependent *trans*-activation of HIV-1 enhancer (Sheridan et al.), 2090–2104
  gene expression and hair morphogenesis (Zhou et al.), 700–713
  role in assembly of TCRα enhancer complex (Giese et al.), 995–1008
Lymphoid tissues, expression of and transcriptional activation by Pip (Eisenbeis et al.), 1377–1387
Lysosomal disease, mouse model for galactosialidosis (Zhou et al.), 2623–2634
LysR-type activators, role of *R. meliloti groELc* in *nod* regulation (Ogawa and Long), 714–729

M

Macronucleus, differentiation, epigenetic regulation in *Paramecium* (Duharcourt et al.), 2065–2077
Magnocellular neurons, effects of Brn-2 loss of function in mice (Nakai et al.), 3109–3121
Maize
  activator and repressor functions of Viviparous-1 (Hoecker et al.), 2459–2469
  effects of ectopic expression of *rough sheath1* (Schneeberger et al.), 2292–2304; Erratum, 2870
Mammary gland
  defects in progesterone receptor-deficient mice (Lydon et al.), 2266–2278
  and expression of *Brca1* in mice (Lane et al.), 2712–2722
Mammary tumors, in *p53* mutant *Wnt-1* transgenic mice (Donehower et al.), 882–895
MAP kinase pathway
  osmoregulated in fission yeast (Millar et al.), 2117–2130
  PKC-activated in yeast (Kamada et al.), 1559–1571
  role of
    C. elegans mek-2 in vulval induction (Wu et al.), 742–755; (Kornfeld et al.), 756–768
    lin-25 in *C. elegans* development (Tuck and Greenwald), 341–357
MAR-binding proteins, Bright protein (Herrscher et al.), 3067–3082
Mash-1, up-regulation in *HES-1* null mice (Ishibashi et al.), 3136–3148
Masquerade protein, serine protease-like molecule required for muslce attachment in *Drosophila* embryos (Murugasu-Oei et al.), 139–154
MATa, donor preference in yeast mating-type switching (Wu and Haber), 1922-1932
Maternal effect, *cappuccino* required for polarity of the egg and embryo in *Drosophila* (Emmons et al.), 2482–2494
Maternal inheritance, epigenetic regulation of IES excision in *Paramecium* (Duharcourt et al.), 2065–2077
Mating-type
  loci
    action of RAP1 at HM loci (Buck and Shore), 370–384
    factors affecting position effects at fission yeast mating-type locus (Allshire et al.), 218–233
  switching, donor preference in yeast (Wu and Haber), 1922-1932
Matrix-associating regions, binding of Bright protein to minor groove of ATC sequence of immunoglobulin (Herrscher et al.), 3067–3082
MCM genes, *Drosophila MCM2* gene (Treisman et al.), 1709–1715
MDR transporter genes. *See* Multidrug resistance transporter genes
MEF2, essential role in *Drosophila* myogenesis (Bour et al.), 730–741
Meiosis
  in *dmc1* and *rad51* mutant yeast (Rockmill et al.), 2684–2695
  and localization of recombination proteins Rad51 and Lim15 (Terasawa et al.), 925–934
  role of *C. elegans spe-26* gene in spermatid formation (Varkey et al.), 1074–1086
Meiotic crossing-over, effects of yeast MutS homolog *MSH5* (Hollingsworth et al.), 1728–1739
Meiotic recombination, localization of Rad51 and Lim15 (Terasawa et al.), 925–934
mek-2, role of *C. elegans mek-2* in vulval induction (Wu et al.), 742–755; (Kornfeld et al.), 756–768
Membrane association, modulation by phosphorylation in *Salmonella typhimurium* (Ostrovsky and Maloy), 2034–2041
Mesoderm
  formation may require signaling through *Bmpr* in mouse (Mishina et al.), 3027–3037
  molecular mechanisms of Spemann's organizer formation in *Xenopus* (Watabe et al.), 3038–3050
Messenger RNA. *See* mRNA
mRNA
  CPSF recognition of HIV-1 3′ processing enhancer (Gilmartin et al.), 72–83
  decapping, as function of poly(A)-binding protein (Caponigro and Parker), 2421–2432
  decay, *trans*-acting factors in nonsense-mediated mRNA decay in yeast (Cui et al.), 423–436; (He and Jacobsen), 437–454
  processing
  role for 5′ and 3′ ends in translation initiation in yeast (Tarun and Sachs), 2997–3007
Methylation
  conserved dimethylation of small subunit rRNA in yeast (Lafontaine et al.), 2470–2481
  in regulation of genomic imprinting (Chaillet et al.), 1177–1187
MHC class II, role of RFX5 mutation in deficiency (Steimle et al.), 1021–1032
MHox gene, role in mouse skeletogenesis (Martin et al.), 1237–1249
Microbial development, role of *flbD* in *Aspergillus* development (Wieser and Adams), 491–502
Micronucleus telomeres, sequence arrangement in *Tetrahymena* (Kirk and Blackburn), 59–71

Microtubule
aberrant organizing center movement and dense meshwork in *homeless* mutants in *Drosophila* (Gillespie and Berg), 2495–2508
-associating proteins, Dis1, required for sister chromatid separation (Nabeshima et al.) 1572–1585
Misexpression, of *Hoxa-13* induces cartilage homeotic transformation in chick limb buds (Yokouchi et al.), 2509–2522
Mismatch repair
not influenced by yeast MutS homolog *MSH5* (Hollingsworth et al.), 1728–1739
specific binding of *MSH2* to DNA mismatches (Alani et al.), 234–247
Mismatched base pairs, specific binding of yeast *MSH2* (Alani et al.), 234–247
Mitochondrial, plasmid, replication of the VS catalytic RNA by reverse transcription (Kennell et al.), 294–303
Mitosis. *See also* Chromatid separation; Chromosomes; Spindle pole body-associating proteins
role of *pyp1* and *pyp2* in fission yeast (Millar et al.), 2117–2130
MMTV promoter. *See* Mouse mammary tumor virus promoter
Morphogenesis, hair follicle and role of LEF-1 (Zhou et al.), 700–713
Mouse
development, role of homeo box gene *Dlx-2* (Qiu et al.), 2523–2538
embryo, requirement of BMP-4 for mouse development (Winnier et al.), 2105–2116
genetics, biallelic expression of imprinted genes in mouse germ line (Szabó and Mann), 1857–1868
transgenic
expression of dominant-negative RARα and alteration of epidermal barrier (Imakado et al.), 317–329
genomic imprinting in *RSVIgmyc* transgenic mice (Chaillet et al.), 1177–1187
Mouse mammary tumor virus
nucleosome positioning on the LTR (Fragoso et al.), 1933–1947
promoter, transcriptional regulation by progesterone receptor (Mymryk and Archer), 1366–1376
MRF4, effect of *MRF4* inactivation (Zhang et al.), 1388–1399
MSH2, specific binding to DNA mismatches (Alani et al.), 234–247
MSH5, role in meiotic crossing-over (Hollingsworth et al.), 1728–1739
Multidrug resistance transporter genes, role of *tagB* in *Dictyostelium* prestalk specialization (Shaulsky et al.), 1111–1122
Multiprotein–DNA complex, VP16-associated protein HCF (Wilson et al.), 2445–2458
Muscle. *See also* Myogenesis; Myogenin; Myotonic dystrophy
attachment, stabilization by masquerade protein in *Drosophila* embryos (Murugasu-Oei et al.), 139–154
gene expression, effect of *MRF4* inactivation (Zhang et al.), 1388–1399
progenitors, lethal of scute and mesoderm development in *Drosophila* (Carmena et al.) 2373–2383
Mutagenesis, insertion, gene trap capture of neural tube formation gene *jumonji* (Takeuchi et al.), 1211–1222
Mutagens, and cancer (Bishop), 1309–1315 Meeting Review
MutS, characterization of yeast homolog *MSH5* (Hollingsworth et al.), 1728–1739
myb, homology of *flbD*, regulator of *Aspergillus* development (Wieser and Adams), 491–502
Myb–Ets-transformed cells, effects of GATA-1 on hematopoietic lineage determination (Kulessa et al.), 1250–1262
Myogenesis
effect of *MRF4* inactivation (Zhang et al.), 1388–1399
essential role of MEF2 in *Drosophila* (Bour et al.), 730–741
induction of bHLH gene expression (Münsterberg et al.), 2911–2922
lethal of scute and mesoderm development in *Drosophila* (Carmena et al.) 2373–2383
Myogenin, regulation by MRF4 (Zhang et al.), 1388-1399
Myotonic dystrophy, effects of *warts*, the *Drosophila* homolog of human myotonic dystrophy kinase (Justice et al.), 534–546
Myxococcus xanthus
extracellular NAD(P)$^+$-containing protein in tactile sensory system (Lee et al.), 2964–2973
identification of *pkn2* gene encoding a transmembrane serine/threonine kinase (Udo et al.), 972–983
initiation of development by guanosine penta- and tetraphosphate (Singer and Kaiser), 1633–1644

N

N protein, and regulation of *E. coli* transcription (Mogridge et al.), 2831–2844
Neoplasia, the rise of the genetic paradigm of cancer (Bishop), 1309–1315 Meeting Review
Nephrogenesis, requirement for BMP-7 during development (Dudley et al.), 2795–2807; (Luo et al.), 2808–2820
Nervous system development
neural crest
cranial, malformations in *Otx2* mutant mice (Matsuo et al.), 2646–2658
and neural tube defects in *twist*-null mice (Chen and Behringer), 686–699
neural tube
defects in *HES-1* null mice (Ishibashi et al.), 3136–3148
defects in *twist*-null mice (Chen and Behringer), 686–699
gene trap capture of formation gene *jumonji* (Takeuchi et al.), 1211–1222
role of Pdm-1 and Pdm-2 in specification of *Drosophila* CNS cell fate (Yeo et al.), 1223–1236
Neural-specific splicing, role of hnRNP F (Min et al.), 2659–2671
Neurogenesis
defects in *HES-1* null mice (Ishibashi et al.), 3136–3148
lethal of scute and mesoderm development in *Drosophila* (Carmena et al.) 2373–2383
role of
scratch in *Drosophila* (Roark et al.), 2384–2398
Suppressor of Hairless (Bailey and Posakony), 2609–2622
in *Suppressor of Hairless* mutant *Drosophila* (Lecourtois and Schweisguth), 2598–2608
Neurogenic genes, lack of expression in *Suppressor of Hairless* mutant *Drosophila* (Lecourtois and Schweisguth), 2598–2608
Neuromuscular connections, role of *Drosophila abrupt* gene in control of neuromuscular connections (Hu et al.), 2936–2948
Neuronal development, effects of Brn-2 loss of function in mice (Nakai et al.), 3109–3121
Neurospora, replication of the VS catalytic RNA by reverse transcription (Kennell et al.), 294–303
NF-κB
activation and regulation (Verma et al.), 2723–2735, Review
effects of IκBα deficiency in mice (Beg et al.), 2736–2746
lymphocyte activation defects in Rel-deficient mice (Köntgen et al.), 1965–1977
protein degradation of IκB homolog

Cactus and dorsal–ventral signaling (Belvin et al.), 783–793
targeting of IκBα to the ubiquitin–proteasome pathway (Chen et al.), 1586–1597
NGFI-B, heterodimerization with RXR (Perlmann and Jansson), 769–782
NIH-3T3 fibroblasts, C/EBPβ induction of adipogenesis (Wu et al.), 2350–2363
Nitrogen regulatory protein C, in transcriptional activation in bacteria (Wedel and Kustu), 2042–2052
NMD2 gene, role in nonsense-mediated mRNA decay in yeast (He and Jacobsen), 437–454
nod genes, role of *R. meliloti groELc* in *nod* regulation (Ogawa and Long), 714–729
NodD, role of *R. meliloti groELc* in *nod* regulation (Ogawa and Long), 714–729
Nonallelic noncomplementation, in revealing genetic interaction between *hoxb-5* and *hoxb-6* (Rancourt et al.), 108–122
Nonsense mutations, *trans*-acting factors involved in enhanced mRNA decay (Cui et al.), 423–436; (He and Jacobsen), 437–454
Notch signaling
response of Suppressor of Hairless (Bailey and Posakony), 2609–2622
role of *canoe* in the *Notch* pathway (Miyamoto et al.), 612–625
in *Suppressor of Hairless* mutant *Drosophila* (Lecourtois and Schweisguth), 2598–2608
Notochord, expression of Wnt family genes (Münsterberg et al.), 2911–2922
NTF-1
binding to *torso* response element (Liaw et al.), 3163–3176
regulation of ventral repression of *decapentaplegic* (Huang et al.), 3177–3189
NTRC. *See* Nitrogen regulatory protein C
Nucleus
hormone receptors, RXR heterodimerization with NGFI-B and NURR1 (Perlmann and Jansson), 769–782
localization signals, presence in *DIMINUTO* gene product in *Arabidopsis* (Takahashi et al.), 97–107
matrix, binding of Bright protein to minor groove of ATC sequence of immunoglobulin (Herrscher et al.), 3067–3082
receptor, short-range synergistic interactions with Pit-1 (Holloway et al.), 1992–2006
transport, activation of dorsal by Toll and tube in *Drosophila* (Norris and Manley), 358–369
Nucleocytoplasmic transport, inhibition by U1 snRNP 70K carboxy-terminal region (Romac and Keene), 1400–1410
Nucleosome
assembly
HMG17 as chromatin-specific transcriptional coactivator (Paranjape et al.), 1978–1991
in regulation of *Xenopus* TRβA gene (Wong et al.), 2696–2711
positioning, On the MMTV LTR (Fragoso et al.), 1933–1947
NURR1, heterodimerization with RXR (Perlmann and Jansson), 769–782
Nus factors, and regulation of *E. coli* transcription (Mogridge et al.), 2831–2844
Nutrient uptake, and G_1 cyclin turnover (Barral et al.), 399–409

O

Oct-1, transcriptional regulation by POU domain proteins (Herr and Cleary), 1679–1693 Review
Oct-2, role in *CD36* gene expression (König et al.), 1598–1607
Oct-3, activation of FGF-4 expression (Yuan et al.), 2635–2645
Oncogenes. *See also* specific names
20 years later (Verma et al.), 1289–1301 Meeting Review
viral, effects of GATA-1 in Myb–Ets-transformed hematopoietic cells (Kulessa et al.), 1250–1262
Oogenesis, role of *cappuccino* in *Drosophila* (Emmons et al.), 2482–2494
Open complex formation, role of NTRC in bacteria (Wedel and Kustu), 2042–2052
ORC, role in transcriptional silencing and chromosomal replication (Fox et al.), 911–924
Origins of replication
developmentally controlled in *Caulobacter* (Marczynski et al.), 1543–1557
effects of mutations in *Drosophila MCM2* (Treisman et al.), 1709–1715
Orphan receptors
identification of LXRα, involved in a distinct retinoid response pathway (Willy et al.), 1033–1045
mediation of 9-*cis* retinoic acid-dependent transcription (Leblanc and Stunnenberg), 1811–1816 Minireview
RXR heterodimerization with orphan receptors NGFI-B and NURR1 (Perlmann and Jansson), 769–782
Otocephaly, in *Otx2* heterozygous mutant mice (Matsuo et al.), 2646–2658
Otx2, role in development of rostral head (Matsuo et al.), 2646–2658

P

P element
cytotype control of transposition (Roche et al.), 1278–1288
investigation of position effect variegation by use of, containing *white* and *hsp26* genes (Wallrath and Elgin), 1263–1277
transposase-induced conversion at *Drosophila Broad-Complex* locus (Gonzy-Tréboul et al.), 1137–1148
p15, cell cycle arrest by TGF-β via Cdk inhibitors (Reynisdóttir et al.), 1831–1845
p16, inhibitors of mammalian G_1 cyclin-dependent kinases (Sherr and Roberts), 1149–1163 Review
p21
cell cycle arrest by TGF-β via Cdk inhibitors (Reynisdóttir et al.), 1831–1845
inhibitors of mammalian G_1 cyclin-dependent kinases (Sherr and Roberts), 1149–1163 Review
p53-dependent and independent regulation of (Macleod et al.), 935-944
role in growth-factor modulation of p53-mediated apoptosis (Canman et al.), 600–611
p27
cell cycle arrest by TGF-β via Cdk inhibitors (Reynisdóttir et al.), 1831–1845
inhibitors of mammalian G_1 cyclin-dependent kinases (Sherr and Roberts), 1149–1163 Review
p53
apoptosis by *trans*-activation-deficient protein in HeLa cells (Haupt et al.), 2170–2183
dependent and independent
apoptosis during lens development in mice (Pan and Griep), 2157–2169
regulation of p21 (Macleod et al.), 935-944
growth-factor modulation of p53-mediated apoptosis (Canman et al.), 600–611
mammary tumors in *p53* mutant *Wnt-1* transgenic mice (Donehower et al.), 882–895
in repression of CDK4 translation (Ewen et al.), 204–217

stabilization by WT1 (Maheswaran et al.), 2143–2156
p57, inhibitors of mammalian G_1 cyclin-dependent kinases (Sherr and Roberts), 1149–1163 Review
p107, Cyclin/cdk regulation (Zhu et al.), 1740–1752
p130, functional interaction between E2F-4 and p130 (Vairo et al.), 869–881
p300, mediation of YY1–E1A interaction (Lee et al.), 1188–1198; Addendum, 1948–1949
Pab1p. *See* Polyadenylation
PacC, pH-regulated proteolytic activation (Orejas et al.), 1622–1632
Pan-neural genes, promotion of neural cell fates by *scratch* in *Drosophila* (Roark et al.), 2384–2398
Papillomavirus
human, E7 induction of host DNA replication in spinous cells (Cheng et al.), 2335–2349
oncogenes, and apoptosis during lens development in mice (Pan and Griep), 2157–2169
Paramecium tetraurelia, epigenetic regulation of IES excision (Duharcourt et al.), 2065–2077
Paraventricular nucleus, effects of Brn-2 loss of function in mice (Nakai et al.), 3109–3121
Pattern formation
Drosophila cappuccino gene related to vertebrate *limb deformity* locus (Emmons et al.), 2482–2494
effects of group 4 *Hox* compound mutants (Horan et al.), 1667–1677
specification of terminal body in *Drosophila* (Casanova et al.), 2539–2544
Patterning
cellular
Cactus protein degradation and dorsal/ventral signaling (Belvin et al.), 783–793
role of *canoe* in the *Notch* pathway (Miyamoto et al.), 612–625
dorsal/ventral
Cactus protein degradation and dorsal–ventral signaling (Belvin et al.), 783–793
regulation of ventral repression of *decapentaplegic* by NTF-1/Elf-1 (Huang et al.), 3177–3189
segmental, malformations in *Otx2* mutant mice (Matsuo et al.), 2646–2658
Pbx, cooperative binding by, with Hox proteins (Chang et al.),663–674
PEBP2α, cooperation with Ets-1 in binding the TCRα enhancer (Giese et al.), 995–1008
Peroxisome proliferator-activated protein, induction by C/EBPβ in mouse fibroblasts (Wu et al.), 2350–2363
PEV. *See* Position effect variegation
pH effects, pH-regulated proteolytic activation of PacC (Orejas et al.), 1622–1632
Phage Mu transposase
dissassembling by ClpX (Levchenko et al.), 2399–2408
enhancer-independent variants (Yang et al.), 2545–2555
Phenocopy, crucial lesions in *Drosophila* heat-induced (Welte et al.), 2240–2250
Pheromone-response pathway, effects of mutations in GAP gene *RGA1* (Stevenson et al.), 2949–2963
Phosphorylation
blocking of β-lactamase secretion in *M. xanthus* (Udo et al.), 972–983
of Dis1 by Cdc2 (Nabeshima et al.) 1572–1585
inhibition by p107 (Zhu et al.), 1740–1752
in *Salmonella typhimurium* (Ostrovsky and Maloy), 2034–2041
in targeting IκBα to the ubiquitin–proteasome pathway (Chen et al.) 1586–1597
Pip protein, role in PU.1-dependent transcriptional activation (Eisenbeis et al.), 1377–1387
Pit-1,monomer/dimer determination of synergy domain (Holloway et al.), 1992–2006
Pituitary
glycoprotein hormone α-subunit, effects of gene disruption in mice (Kendall et al.), 2007–2019
monomer/dimer determination of Pit-1 synergy domain (Holloway et al.), 1992–2006
role of fetal hormones in ontogeny (Kendall et al.), 2007–2019
PKC. *See* Protein kinase C
pkn2, *M. xanthus* gene encoding a transmembrane serine/threonine kinase (Udo et al.), 972–983
Placental defects, failure of allantois to fuse to chorion in VCAM-1-deficient embryos (Gurtner et al.), 1–14
Plant development. *See also* Root development
effects of ectopic expression of *rough sheath1* in maize (Schneeberger et al.), 2292–2304; Erratum, 2870
use of enhancer traps and gene traps for study of *Arabidopsis* development (Sundaresan et al.), 1797–1810
Plasmid, mitochondrial, replication of the VS catalytic RNA by reverse transcription (Kennell et al.), 294–303
Plasminogen, deficiency in mice (Bugge et al.), 794–807
Platelet aggregation, in fibrinogen-deficient mice (Suh et al.), 2020–2033
plo1 kinase, role of *S. pombe*, in spindle and septum formation (Ohkura et al.), 1059–1073
PMP22 gene, induction of apoptosis by overexpression (Fabbretti et al.), 1846–1856
Polar development, and cell-type determination in *Caulobacter* (Marczynski et al.), 1543–1557
Polo homolog, role of *S. pombe* plo1 in spindle and septum formation (Ohkura et al.), 1059–1073
Poly(A). *See* Polyadenylation
Poly(ADP-ribosyl)ation, effects of ADRPT gene knockout in mice (Wang et al.), 509–520
Polyadenylation
binding protein
function in mRNA decay (Caponigro and Parker), 2421–2432
in recruitment of 40S ribosomal subunit to mRNA (Tarun and Sachs), 2997–3007
CPSF recognition of HIV-1 3′ processing enhancer (Gilmartin et al.), 72–83
inhibition by splice donor site in HIV-1 provirus (Ashe et al.), 3008–3025
properties of the 160-kD subunit of cleavage–polyadenylation specificity factor (Murthy and Manley), 2672–2683
role of poly(A) tail in translation initiation in yeast (Tarun and Sachs), 2997–3007
site definition, site selection in HIV-1 provirus (Ashe et al.), 3008–3025
Polydactylous mice, duplication of zone of polarizing activity (Masuya et al.), 1645–1653
Position effect variegation
association with altered chromatin in *Drosophila* (Wallrath and Elgin), 1263–1277
factors affecting position effects at fission yeast centromeres (Allshire et al.), 218–233
POU domain proteins
CD36, target gene for Oct-2 (König et al.), 1598–1607
role of
Brn-2 in development of endocrine hypothalmus and pituitary gland in mice (Schonemann et al.), 3122–3135
Brn-2 in neural development in mice (Nakai et al.), 3109–3121
Drosophila drifter in cell migration and differentiation (Anderson et al.), 123–137

Pdm-1 and Pdm-2 in specification of *Drosophila* CNS cell fate (Yeo et al.), 1223–1236
transcriptional regulation by (Herr and Cleary), 1679–1693 Review
PPARα. *See* Peroxisome proliferator-activated protein
PPCA. *See* Protective protein/cathepsin A
PPE. *See*. Pre-mRNA processing enhancer
PR. *See* Progesterone receptor
Prader–Willi syndrome, replication timing in the human imprinted region (Gunaratne et al.), 808–820
Pre-mRNA processing
enhancer, role in intron-independent gene expression (Liu and Mertz), 1766–1780
role of the 160-kD subunit of cleavage–polyadenylation specificity factor (Murthy and Manley), 2672–2683
Preaxial polydactyly, duplication of zone of polarizing activity in polydactylous mutant mice (Masuya et al.), 1645–1653
Prestalk specialization, role of TagB in *Dictyostelium* (Shaulsky et al.), 1111–1122
Progesterone receptor
effects of gene disruption in mice (Lydon et al.), 2266–2278
role in open chromatin formation (Mymryk and Archer), 1366–1376
Programmed cell death. *See also* Apoptosis
role of DAP-1 and DAP kinase in α-interferon-induced (Deiss et al.), 15–30
role of *Drosophila head involution defective* gene (Grether et al.), 1694–1708
Proline, metabolism, role of phosphorylation of PutA protein in *Salmonella typhimurium* (Ostrovsky and Maloy), 2034–2041
Promoter-proximal pausing, effects of enhancers and core promoters on Pol II pausing in the c-*myc* gene (Krumm et al.), 559–572
Proneural genes, regulation of *achaete* and *scute* by shared enhancer-like elements (Gómez-Skarmeta et al.), 1869–1882
Proprotein processing, role of *C. elegans bli-4* gene encoding kex2/subtilisin-like endoproteases (Thacker et al.), 956–971
Proteasome, targeting of IκBα to the ubiquitin–proteasome pathway (Chen et al.), 1586–1597
Protective protein/cathepsin A, deficient mice as models for lysosomal disease (Zhou et al.), 2623–2634
Protein
degradation
Cactus and dorsal–ventral signaling (Belvin et al.), 783–793
G_1 cyclin turnover and nutrient uptake (Barral et al.), 399–409
targeting of IκBα to the ubiquitin–proteasome pathway (Chen et al.) 1586–1597
stabilization, of p53 by WT1 (Maheswaran et al.), 2143–2156
Protein–protein interactions, in sexual regulation of *C. elegans tra-1* (de Bono et al.), 155–167
Protein-binding domains, disruption of RB function by coexpression of its C pocket (Welch and Wang), 31–46
Protein kinase C, activation of PKC pathway in yeast during heat shock (Kamada et al.), 1559–1571
Protein kinases, *warts*, the *Drosophila* homolog of human myotonic dystrophy kinase (Justice et al.), 534–546
Protein tyrosine phosphatases, role of *pyp1* and *pyp2* in fission yeast (Millar et al.), 2117–2130
Proteolysis
cleavage, sites are the HCF repeats found in HCF (Wilson et al.), 2445–2458
G_1 cyclin turnover and nutrient uptake (Barral et al.), 399–409
heat-induced developmental defects in *Drosophila* (Welte et al.), 2240–2250
pH-regulated proteolytic activation of PacC (Orejas et al.), 1622–1632
Proto-oncogene. *See also specific names*
lymphocyte activation defects in c-*rel* null mice (Köntgen et al.), 1965–1977
Prp8, role in 3′ splice site selection in yeast (Umen and Guthrie), 855–868
PSI
negative regulator of P element pre-mRNA splicing (Siebel et al.), 269–283
soma-specific alternative splicing factor (Siebel et al.), 269–283
PTPases. *See* Protein tyrosine phosphatases
PU.1, in Pip protein transcriptional activation function (Eisenbeis et al.), 1377–1387
PutA protein, autophosphorylation in *Salmonella typhimurium* (Ostrovsky and Maloy), 2034–2041

R

Rad51, localization with recombination protein Lim15 to meiotic chromosomes (Terasawa et al.), 925–934
RAD51, encodes RecA homolog in yeast (Rockmill et al.), 2684–2695
Raf
induction of heparin-binding epidermal growth factor expression (McCarthy et al.), 1953–1964
Raf1 interaction with Cdc25 phosphatases (Galaktionov et al.), 1046–1058
role in growth-factor modulation of p53-mediated apoptosis (Canman et al.), 600–611
RAG-1, role in target specificity of *V(D)J* recombination (Sadofsky et al.), 2193–2199
RAP1, action at HM loci and telomeres (Buck and Shore), 370–384
RAP74, interaction with $TAF_{II}250$ (Ruppert and Tjian), 2747–2755
RAR. *See* Retinoic acid receptor
Ras
induction of heparin-binding epidermal growth factor expression (McCarthy et al.), 1953–1964
Raf1 interaction with Cdc25 phosphatases (Galaktionov et al.), 1046–1058
Ras signaling pathway
role of *C. elegans mek-2* in vulval induction (Wu et al.), 742–755; (Kornfeld et al.), 756–768
sur-2, downstream of *let-60 ras* in *C. elegans* (Singh and Han), 2251–2265
Rb gene family. *See* Retinoblastoma gene family
RB. *See* Retinoblastoma protein
RbfA, suppression of 16S rRNA mutation by overexpression of (Dammel and Noller), 626–637
RCC1, processing of snoRNAs from introns (Kiss and Filipowicz), 1411–1124
RecA homologs, encoded by *RAD51* and *DMC1* genes in yeast (Rockmill et al.), 2684–2695
Receptor tyrosine kinase, DER activation by *spitz* in *Drosophila* (Schweitzer et al.), 1518–1529
Receptors. *See* specific types
Recombinase
FLB, asymmetry in active complexes in yeast (Qian and Cox), 2053–2053
FLP, use in deletion of 5′ HS2 of the murine β-globin LCP (Fiering et al.), 2203–2213
Recombination
in *dmc1* and *rad51* mutant yeast (Rockmill et al.), 2684–2695
donor preference in yeast mating-type switching (Wu and Haber), 1922-1932
effects of yeast MutS homolog *MSH5*

(Hollingsworth et al.), 1728–1739
homologous
to create progesterone receptor-deficient mice (Lydon et al.), 2266–2278
enhancer-trap transposon targeting of the *Drosophila Broad-Complex* locus (Gonzy-Tréboul et al.), 1137–1148
homologs of the *SIR2* silencing gene (*HST* genes) Brachmann et al.), 2888–2902
use in VCAM-1 knockout mice (Gurtner et al.), 1–14
integrated, insights into the mechanism by retroviral integrases in vitro (Kukolj and Skalka), 2556–2567
meiotic, localization of Rad51 and Lim15 (Terasawa et al.), 925–934
Recombination-induced mutant 4, and duplication of skeletal digit patterns in mice (Masuya et al.), 1645–1653.
Recycling, general transcription factors of RNA polymerase II (Zawel et al.), 1479–1490
Rel protein family
associations and dissociations (Verma et al.), 2723–2735, Review
lymphocyte activation defects in Rel-deficient mice (Köntgen et al.), 1965–1977
targeting of IκBα to the ubiquitin–proteasome pathway (Chen et al.), 1586–1597
RelA, effects of *E. coli* protein on *Myxococcus* development (Singer and Kaiser), 1633–1644
Replication. *See* DNA replication
Replication origins. *See* Origins of replication
Reproduction, defects in progesterone receptor-deficient mice (Lydon et al.), 2266–2278
Response regulators, Cpx regulation of *degP* transcription in *E. coli* (Danese et al.), 387–398
Retinoblastoma gene family, functional interaction between E2F-4 and p130 (Vairo et al.), 869–881
Retinoblastoma protein, disruption of RB function by coexpression of its C pocket (Welch and Wang), 31–46
Retinoblastoma-related proteins, cyclin/cdk regulation by p107 (Zhu et al.), 1740–1752
Retinoic acid
9-*cis* signaling (Leblanc and Stunnenberg), 1811–1816 Minireview
involvement of LXRα in a distinct retinoid response pathway (Willy et al.), 1033–1045
receptor. *See also* Retinoid receptors
dominant-negative RARα and alteration of epidermal barrier (Imakado et al.), 317–329
RXR heterodimerization with NGFI-B and NURR1 (Perlmann and Jansson), 769–782
Retinoid receptors, identification of LXRα, involved in a distinct retinoid response pathway (Willy et al.), 1033–1045
Retroelements, mitochondrial VS catalytic RNA (Kennell et al.), 294–303
Retrovirus
gene transfer, for *HOXB4* transduction of stem cells (Sauvageau et al.), 1753–1765
synapsed substrates for integrase *in vitro* (Kukolj and Skalka), 2556–2567
system, misexpression of *Hoxa-13* in chick limb bud (Yokouchi et al.), 2509–2522
Reverse transcription, replication of the VS catalytic RNA (Kennell et al.), 294–303
RFX proteins, role of RFX5 mutation in MHC class II deficiency (Steimle et al.), 1021–1032
RGA1, encoding GAP activity in the yeast pheromone pathway (Stevenson et al.), 2949–2963
Rhizobium meliloti, role of *groELc* in *nod* regulation (Ogawa and Long), 714–729
Rib, anomalies, in MRF4-null mice (Zhang et al.), 1388–1399
Ribosomal proteins, S14 as negative regulator of human *RPS14* transcription (Tasheva and Roufa), 304–316
Ribosomal RNA. *See* rRNA
Ribosomes
assembly, ribosome-binding factor RbfA (Dammel and Noller), 626–637
recruitment to mRNA (Tarun and Sachs), 2997–3007
synthesis
base-pairing of U14 with 18S RNA during rRNA processing (Liang and Fournier), 2433–2443
Dim1p required for pre-ribosomal RNA processing in yeast (Lafontaine et al.), 2470–2481
Ribozymes
novel U2–U6 snRNA structure for splicing (Sun and Manley), 843–854
replication of the VS catalytic RNA (Kennell et al.), 294–303
Rim4. See Recombination-induced mutant 4
Ring finger protein, encoded by murine *Brca1* (Lane et al.), 2712–2722
RNA
degradation
autoregulation of *rne* gene expression (Jain and Belasco), 84–96
trans-acting factors in nonsense-mediate RNA decay (Cui et al.), 423–436; (He and Jacobsen), 437–454
enzymatic activity
intron-encoded, processing of snoRNAs from pre-mRNA introns (Kiss and Filipowicz), 1411–1124
novel U2–U6 snRNA structure for splicing (Sun and Manley), 843–854
targeted cleavage of TK mRNA by RNase P (Liu and Altman), 471–480
processing
base-pairing of U14 with 18S RNA during (Liang and Fournier), 2433–2443
of pre-rRNA requires a methylase in yeast (Lafontaine et al.), 2470–2481
of snoRNAs from pre-mRNA introns (Kiss and Filipowicz), 1411–1124
regulatory complexes, role of hnRNP F in neural-specific splicing (Min et al.), 2659–2671
transport, and pre-mRNA processing (Liu and Mertz), 1766–1780
RNA-binding proteins
CPSF recognition of HIV-1 3′-processing enhancer (Gilmartin et al.), 72–83
GCD10, subunit of eIF-3 (Garcia-Barrio et al.), 1781–1796
hnRNP L, involved in intron-independent gene expression (Liu and Mertz), 1766–1780
homeless in *Drosophila* (Gillespie and Berg), 2495–2508
negative regulator of P element pre-mRNA splicing (Siebel et al.), 269–283
soma-specific alternative splicing factor, PSI (Siebel et al.), 269–283
RNA polymerase I, DNA–PK inhibition of transcription (Kuhn et al.), 193–203
RNA polymerase II
association of an activator with holoenzyme (Hengartner et al.), 897–910
binding sites and HSF access to heat shock elements (Shopland et al.), 2756–2769
effects of enhancers and core promoters on pausing (Krumm et al.), 559–572
HMG17 as transcriptional coactivator (Paranjape et al.), 1978–1991
influence of subunit RPB9 on mRNA

start-site selection in yeast (Hull et al.), 481–490
role of $TAF_{II}250$ interaction with RAP74 (Ruppert and Tjian), 2747–2755
transition from initiation to elongation (Zawel et al.), 1479–1490
RNA polymerase III
cloning and characterization of TFIIICβ (Sinn et al.), 675–685
functional symmetry of the yeast U6 RNA gene TATA box (Whitehall et al.), 2976–2985
role of TFIIIC in RNA polymerase specificity for U6 transcription (Roberts et al.), 832-842
RNase E, autoregulation of *rne* gene expression (Jain and Belasco), 84–96
RNase P, inhibition of viral gene expression (Liu and Altman), 471–480
rne, autoregulation of gene expression (Jain and Belasco), 84–96
Root development
pathway for lateral root formation in *Arabidopsis* (Celenza et al.), 2131–2142
SABRE gene in regulation of *Arabidopsis* cell expansion (Aeschbacher et al.), 330–340
rough sheath1, effects of ectopic expression of in maize (Schneeberger et al.), 2292–2304; Erratum, 2870
RPS14 locus, regulation of human transcription (Tasheva and Roufa), 304–316
rRNA, suppression of 16S mutation by overexpression of RbfA (Dammel and Noller), 626–637
RU486, in blocking of progesterone receptor-regulated transcription (Mymryk and Archer), 1366–1376
RXR
heterodimerization with NGFI-B and NURR1 (Perlmann and Jansson), 769–782
identification of LXRα, a molecluar switch for retinoid X receptors (Willy et al.), 1033–1045
promiscuity and 9-*cis* retinoic acid signaling (Leblanc and Stunnenberg), 1811–1816 Minireview
regulation of *Xenopus* TRβA gene (Wong et al.), 2696–2711

S

S phase, regulation by cyclin E/cdc2c kinase in *Drosophila* embryogenesis (Sauer et al.), 1327–1339
SABRE gene, regulation of cell expansion in *Arabidopsis* (Aeschbacher et al.), 330–340
Saccharomyces cerevisiae
activation of PKC pathway during heat shock (Kamada et al.), 1559–1571
analysis of the *SNR6* locus (Marsolier et al.), 410–422
asymmetric complexes of FLB recombinase (Qian and Cox), 2053–2064
characterization of MutS homolog *MSH5* (Hollingsworth et al.), 1728–1739
cloning and characterization of CCAAT-binding factor subunit HAP5 (McNabb et al.), 47–58
Dim1p required for pre-ribosomal RNA processing (Lafontaine et al.), 2470–2481
donor preference in mating-type switching (Wu and Haber), 1922-1932
functions of poly(A)-binding protein (Caponigro and Parker), 2421–2432
G_1 cyclin turnover and nutrient uptake (Barral et al.), 399–409
histone H4 and genome integrity (Megee et al.), 1716–1727
homologs of the *SIR2* silencing gene (*HST* genes) Brachmann et al.), 2888–2902
influence of Pol II subunit RPB9 on mRNA start-site selection (Hull et al.), 481–490
involvement of chromosome-associated protein CSE4p in chromatin assembly (Stoler et al.), 573–586
Rho GAP activity in the pheromone pathway (Stevenson et al.), 2949–2963
role for 5′ and 3′ ends in translation initiation (Tarun and Sachs), 2997–3007
role of
ORC in transcriptional silencing and chromosomal replication (Fox et al.), 911–924
Prp8 (U5 snRNP), in 3′ splice site selection (Umen and Guthrie), 855-868
TFIIIC in RNA polymerase specificity for yeast U6 transcription (Roberts et al.), 832-842
SMC2 and mitotic chromosome structure (Strunnikov et al.), 587–599
specific binding of *MSH2* to DNA mismatches (Alani et al.), 234–247
Ste20-like kinases in cell morphogenesis (Cvrčková et al.), 1817–1830
TPR-motif mediation of Cyc8–Tup1 protein–protein interactions (Tzamarias and Struhl), 821–831
trans-acting factors involved in nonsense-mediated mRNA decay (Cui et al.), 423–436; (He and Jacobsen), 437–454
Salmonella typhimurium, role of phosphorylation in modulating membrane–protein interactions and transcription (Ostrovsky and Maloy), 2034–2041
scabrous, function with *canoe* in the *Notch* pathway (Miyamoto et al.), 612–625
SCAD family *See* Short chain alcohol dehydrogenase family
Schizosaccharomyces pombe
factors affecting position effects at centromeres (Allshire et al.), 218–233
osmoregulated MAP kinase pathway (Millar et al.), 2117–2130
role of
Dis1 in sister chromatid separation (Nabeshima et al.), 1572–1585
plo1 kinase in spindle and septum formation (Ohkura et al.), 1059–1073
scratch, promotion of neural cell fates in *Drosophila* (Roark et al.), 2384–2398
Scruin, similarity of the *C. elegans spe-26* gene product (Varkey et al.), 1074–1086
scute, regulation with *achaete* by shared enhancer-like elements (Gómez-Skarmeta et al.), 1869–1882
Secreted proteins, role of CsfX in signaling the processing of pro-σ^E in *B. subtilis* (Londoño-Vallejo and Straiger), 503–508
Seed, germination and maturation, integration by Viviparous-1 in maize (Hoecker et al.), 2459–2469
Segment polarity genes, modification of Dishevelled in *Drosophila* development (Yanagawa et al.), 1087–1097
Sensory system, role of extracellular NAD(P)$^+$-containing protein in *Myxococcus* (Lee et al.), 2964–2973
Septation, chromosome partitioning during sporulation in *B. subtilis* (Wu et al.), 1316–1326
Septins, identification of *CLA4* in yeast (Cvrčková et al.), 1817–1830
Septum, role of *S. pombe* plo1 in spindle and septum formation (Ohkura et al.), 1059–1073
Serine proteases, role of
bli-4 gene encoding kex2/subtilisin-like endoproteases in *C. elegans* development (Thacker et al.), 956–971
masquerade protein in stabilization of muscle attachment in *Droso-*

phila embryos (Murugasu-Oei et al.), 139–154
tagB, a serine protease gene, in *Dictyostelium* prestalk specialization (Shaulsky et al.), 1111–1122
Serine/threonine kinases
DAP-1 and DAP kinase, mediators of programmed cell death (Deiss et al.), 15–30
identification of *M. xanthus pkn2* gene encoding (Udo et al.), 972–983
Sex determination, sexual regulation of *C. elegans tra-1* (de Bono et al.), 155–167
Sexual behavior, defects in progesterone receptor-deficient mice (Lydon et al.), 2266–2278
Sexual differentiation, integration of sex- and tissue-specific regulation in *Drosophila* (An and Wensink), 256–266
SH3 domains
in Abi-1, Abl-interacting protein (Shi et al.), 2583–2597
in Abi-2, substrate for c-Abl (Dai and Pendergast), 2569–2582
in the Abelson tyrosine kinase substrate *enabled* (Gertler et al.), 521–533
Shh. *See Sonic hedgehog*
Short chain alcohol dehydrogenase family, cell-surface protein CsgA in *Myxococcus* (Lee et al.), 2964–2973
σ-factors
activation of $\sigma^E$by σ^F in *B. subtilis* (Londoño-Vallejo and Straiger), 503–508
dependence of Cpx-mediated transcription on RNA polymerase containing σ^E (Danese et al.), 387–398
novel σ^{54} transcription cycle (Tintut et al.), 2305–2313
NTRC activation of transcription by σ^{54}-holoenzyme (Wedel and Kustu), 2042–2052
Signal transduction. *See also* Phosphorylation; Protein kinases; Ras signaling pathway; Tyrosine kinases; Tyrosine phosphorylation; Wingless signaling
activation of PKC pathway in yeast during heat shock (Kamada et al.), 1559–1571
Bmpr encodes an essential type I bone morphogenetic receptor in mouse (Mishina et al.), 3027–3037
C. elegans tra-1 mutants that do not respond to sex-determining signal (de Bono et al.), 155–167
cleaved form of *trunk* acts as ligand for *torso* in *Drosophila* (Casanova et al.), 2539–2544
E. coli Cpx two-component signal transduction pathway (Danese et al.), 387–398
induction of heparin-binding epidermal growth factor expression by Ras and Raf (McCarthy et al.), 1953–1964
modification of Dishevelled by the Wingless signaling pathway in *Drosophila* development (Yanagawa et al.), 1087–1097
pH-regulated proteolytic activation of PacC (Orejas et al.), 1622–1632
Raf1 interaction with Cdc25 phosphatases (Galaktionov et al.), 1046–1058
Rho GAP activity in the yeast pheromone pathway (Stevenson et al.), 2949–2963
role of
C. elegans mek-2 in vulval induction (Wu et al.), 742–755
lin-1 in *C. elegans* vulval induction (Beitel et al.), 3149–3162
S. pombe plo1 in spindle and septum formation (Ohkura et al.), 1059–1073
Suppressor of Hairless in Notch signaling pathway (Bailey and Posakony), 2609–2622
sur-2 in *let-60 ras* signaling pathway (Singh and Han), 2251–2265
sensing pathways for competence factors ComX and CSF (Solomon et al.), 547–558
signaling molecules in oncogenesis (Verma et al.), 1289–1301 Meeting Review
spitz triggers the DER signaling cascade (Schweitzer et al.), 1518–1529
in *Suppressor of Hairless* mutant *Drosophila* (Lecourtois and Schweisguth), 2598–2608
SIN2, identical to *HHT1*, encoding histone H3 (Kruger et al.), 2770–2779
SIR genes
homologs of the *SIR2* silencing gene (*HST* genes) (Brachmann et al.), 2888–2902
role of ORC in transcriptional silencing (Fox et al.), 911–924
Skeletal organogenesis
defects in collagen II-deficient mice (Li et al.), 2821–2830
effects of group 4 *Hox* compound mutants in mice (Horan et al.), 1667–1677
requirement for BMP-7 (Luo et al.), 2808–2820
role of *MHox* in mouse skeletogenesis (Martin et al.), 1237–1249
Skin disease, resulting from ADRPT gene knockout in mice (Wang et al.), 509–520
Small nuclear RNA
novel U2–U6 snRNA structure for splicing (Sun and Manley), 843–854
role of TFIIIC in RNA polymerase specificity for U6 transcription (Roberts et al.), 832-842
Small nucleolar RNAs
base-pairing of U14 with 18S RNA during rRNA processing (Liang and Fournier), 2433–2443
processing from pre-mRNA introns (Kiss and Filipowicz), 1411–1124
SMC family, SMC2 and mitotic chromosome structure (Strunnikov et al.), 587–599
snail, closely related to *scratch* in *Drosophila* (Roark et al.), 2384–2398
snRNA. *See* Small nuclear RNA
snoRNAs. *See* Small nucleolar RNA
SNR6 gene. *See* U6 RNA gene
SNR6 locus, nucleosomal organization and transcriptional activity (Marsolier et al.), 410–422
SNRPN gene, replication timing in the human *SNRPN* gene region (Gunaratne et al.), 808–820
Somatic musculature, essential role of MEF2 in *Drosophila* myogenesis (Bour et al.), 730–741
Somitogenesis, induction of myogenic bHLH gene expression in somites (Münsterberg et al.), 2911–2922
Sonic hedgehog
ectopic expression in polydactylous mutant mice (Masuya et al.), 1645–1653
induction of myogenic bHLH gene expression (Münsterberg et al.), 2911–2922
Sox2, activation of FGF-4 expression (Yuan et al.), 2635–2645
spätzle, similarities to *trunk* in *Drosophila* (Casanova et al.), 2539–2544
Spatial localization, cell sorting and morphogenesis in *Dictyostelium* (Firtel), 1427–1444 Review
Spemann's organizer formation, conserved growth factor synergy between *Xenopus* and mouse (Watabe et al.), 3038–3050
Spermatid, role of *C. elegans spe-26* gene in formation (Varkey et al.), 1074–1086
Spermatogenesis, role of *C. elegans spe-26* gene in spermatid formation (Varkey et al.), 1074–1086
Spindle, role of *S. pombe* plo1 in formation of (Ohkura et al.), 1059–1073
Spindle pole body-associating proteins, Dis1, required for sister chromatid separation (Nabeshima et al.), 1572–1585

spitz, *Drosophila* TGF-α homolog (Schweitzer et al.), 1518–1529
Splicing
c-*src* neural-specific pre-mRNA (Min et al.), 2659–2671
inhibition by U1 snRNP 70K carboxy-terminal region (Romac and Keene), 1400–1410
inhibition of promoter-proximal polyadenylation by splice donor site in HIV-1 provirus (Ashe et al.), 3008–3025
novel U2–U6 snRNA structure (Sun and Manley), 843–854
pre-mRNA, negative regulator of P element (Siebel et al.), 269–283
processing of snoRNAs from pre-mRNA introns (Kiss and Filipowicz), 1411–1124
role in cytotype control of P-element transposition (Roche et al.), 1278–1288
role of Prp8 (U5 snRNP), in 3′ splice site selection in yeast (Umen and Guthrie), 855–868
soma-specific alternative splicing factor, PSI (Siebel et al.), 269–283
synergistic interactions in a splicing enhancer (Lynch and Maniatis), 284–293
U1-independent pre-mRNA (Crispino and Sharp), 2314–2323
spoIIIE gene, mutations that block chromosome partitioning during sporulation in *B. subtilis* (Wu et al.), 1316–1326
Sporulation
activation of σ^E by σ^F in *B. subtilis* (Londoño-Vallejo and Straiger), 503–508
prespore chromosome partitioning in *B. subtilis* (Wu et al.), 1316–1326
sensing pathways for competence factors ComX and CSF (Solomon et al.), 547–558
SR proteins
bypassing of U1 requirement for splicing (Crispino and Sharp), 2314–2323
interaction with U1-70K in spliceosome assembly (Romac and Keene), 1400–1410
SRB proteins, cloning and characterization of *S. cerevisiae SRB* genes (Hengartner et al.), 897–910
src
in oncogenesis (Verma et al.), 1289–1301 Meeting Review
role in growth-factor modulation of p53-mediated apoptosis (Canman et al.), 600–611
src−/− fibroblasts, role of c-Src in cellular adhesion (Kaplan et al.), 1505–1517
Ssn6, interaction with homeo domain protein α2 (Smith et al.), 2903–2910
Start, CLN3 determination of *CLN2* transcription (Stuart and Wittenberg), 2780–2794
STAT proteins, DNA recognition by (Horvath et al.), 984–994
Ste20-like kinases in cell morphogenesis (Cvrčková et al.), 1817–1830
Steel gene, female sterility in mutant mice (Bedell et al.), 455–470
Sterility, female, effects of *Sl* mutations in mice (Bedell et al.), 455–470
Steroid hormones
antagonists
RU486 in blocking of transcription (Mymryk and Archer), 1366–1376
ZK98299 in prevention of PR binding to chromatin (Mymryk and Archer), 1366–1376
receptors
progesterone, and open chromatin formation (Mymryk and Archer), 1366–1376
thyroid hormone, regulation of *Xenopus* TRβA gene (Wong et al.), 2696–2711
Subcellular distribution, of c-Src following its activation in *src*−/− fibroblasts (Kaplan et al.), 1505–1517
Supraoptic nucleus, effects of Brn-2 loss of function in mice (Nakai et al.), 3109–3121
sur-2, role in vulval induction (Singh and Han), 2251–2265
SWI/SNF complex, relief of requirement by histone mutations (Kruger et al.), 2770–2779
Sym plasmid, mapping of *groESLa* to Rm1021 megaplasmid pSyma (Ogawa and Long), 714–729
Synaptonemal complex, in *dmc1* and *rad51* mutant yeast (Rockmill et al.), 2684–2695
Synechococcus, circadian orchestration of gene expression in strain PCC 7942 (Liu et al.), 1469–1478

T

T-DNA tagging, isolation of *DIMINUTO* mutant in *Arabidopsis* (Takahashi et al.), 97–107
Tactile response, role of extracellular NAD(P)$^+$-containing protein in *Myxococcus* (Lee et al.), 2964–2973
TAF. *See* TATA-box binding protein-associated factor
tailless, regulation by *torso* response element (Liaw et al.), 3163–3176
Tastin, role in embryo implantation (Fukuda et al.), 1199–1210
TATA box
binding protein
associated factor, $TAF_{II}250$ interaction with RAP74 (Ruppert and Tjian), 2747–2755
interaction with TFIIIB in the yeast U6 RNA gene (Whitehall et al.), 2974–2985
influence of Pol II subunit RPB9 on mRNA start-site selection (Hull et al.), 481–490
role of TFIIIC in RNA polymerase specificity (Roberts et al.), 832-842
TBP. *See* TATA-box binding protein
TβRII, TGF-β1 and, in epidermal homeostasis (Cui et al.), 945–955
TCF-1, gene expression of LEF-1 versus, and hair morphogenesis (Zhou et al.), 700–713
TCRα enhancer, role of LEF-1 in assembly of TCRα enhancer complex (Giese et al.), 995–1008
Telomerase
enzymatic effects of RNA mutations (Gilley et al.), 2214–2226
RNA domain boundaries (Autexier and Greider), 2227–2239
Telomeres
action of RAP1 at *HM* loci and (Buck and Shore), 370–384
difference in mechanism for gene suppression from centromeres (Wallrath and Elgin), 1263–1277
micronuclear, sequence arrangement in *Tetrahymena* (Kirk and Blackburn), 59–71
position effects at fission yeast centromeres and (Allshire et al.), 218–233
sequences
arrangement in *Tetrahymena* micronuclear telomeres (Kirk and Blackburn), 59–71
silencing, homologs of the *SIR2* silencing gene (*HST* genes) Brachmann et al.), 2888–2902
Temin, Howard, in memoriam (Baltimore), 1303–1307 Meeting Review
Terminal differentiation, and expression of *Brca1* in mice (Lane et al.), 2712–2722
Tetrahymena thermophila
enzymatic effects of telomerase RNA mutations (Gilley et al.), 2214–2226
role of deletion-associated DNA breaks in genomic rearrangement (Saveliev and Cox), 248–255
sequence arrangement in micronuclear telomeres (Kirk and Blackburn), 59–71
telomerase RNA domain boundaries

(Autexier and Greider), 2227–2239
Tetratricopeptide repeat
mediation of Cyc8 protein–protein interactions (Tzamarias and Struhl), 821–831
Ssn6 interaction with homeo domain α2 (Smith et al.), 2903–2910
TFIIA, in transcriptional activation via HMG-2 (Shykind et al.), 1354–1365
TFIID
and HSF access to heat shock elements (Shopland et al.), 2756–2769
in transcriptional activation via HMG-2 (Shykind et al.), 1354–1365
TFIIIB, bidirectional assembly in the yeast U6 RNA gene (Whitehall et al.), 2974–2985
TFIIIC
cloning and characterization of TFIIICβ (Sinn et al.), 675–685
role
in determination of RNA polymerase specificity (Roberts et al.), 832-842
of TFIIIC in determination of RNA Pol III specificity (Roberts et al.), 832-842
TGF-β. *See* Transforming growth factor-β
TGF-β receptor. *See* Transforming growth factor-β receptor
Thermotolerance, heat-induced developmental defects in *Drosophila* (Welte et al.), 2240–2250
Thrombosis, caused by plasminogen deficiency in mice (Bugge et al.), 794–807
Thymidine kinase gene. *See also* Herpes simplex virus thymidine kinase gene
inhibition of expression by RNase P (Liu and Altman), 471–480
Thyroid hormone receptor, regulation of *Xenopus* TRβA gene (Wong et al.), 2696–2711
tinman gene, homology of mouse *Nkx2-5* (Lyons et al.), 1654–1666
Tissue specificity. *See also* Tissue-specific factors
cytotype control of P-element transposition (Roche et al.), 1278–1288
Tissue-specific factors
BETA2, novel bHLH activator of the insulin gene (Naya et al.), 1009–1019
expression of and transcriptional activation by Pip in lymphoid tissues (Eisenbeis et al.), 1377–1387
gene expression of LEF-1 versus TCF-1 and hair morphogenesis (Zhou et al.), 700–713
hematopoietic lineage determination by GATA-1 (Kulessa et al.), 1250–1262
negative regulator of P element pre-mRNA splicing (Siebel et al.), 269–283
soma-specific alternative splicing factor, PSI (Siebel et al.), 269–283
Tn*10*, regulation of with IS*10* transposition by IHF (Signon and Kleckner), 1123–1136
Toll protein. *See also* Tube protein
activation of dorsal by, in *Drosophila* (Norris and Manley), 358–369
Topoisomerase IV, role in DNA unlinking during replication in *E. coli* (Zechiedrich and Cozzarelli), 2859–2869
torso
cleaved form of *trunk* acts as ligand *Drosophila* (Casanova et al.), 2539–2544
response element, regulation of *tailless* by relief of repression (Liaw et al.), 3163–3176
TPR. *See* Tetratricopeptide repeat
TR. *See* Thyroid hormone receptor
Tra proteins, similarity of SpoIIIE in *B. subtilis* (Wu et al.), 1316–1326
Trachea, role of *drifter* in migration and differentiation of *Drosophila* tracheal cells (Anderson et al.), 123–137
Transcription
essential for regulated replication in *Caulobacter* (Marczynski et al.), 1543–1557
HCF contains unusual proteolytic cleavage sites (Wilson et al.), 2445–2458
localization of *Brca1* transcripts in mice (Lane et al.), 2712–2722
novel σ^{54} cycle (Tintut et al.), 2305–2313
Transcription elongation
disrupts initiation complexes (Zawel et al.), 1479–1490
effects of enhancers and core promoters on pol II pausing (Krumm et al.), 559–572
heat shock gene, role of GAGA protein (O'Brien et al.), 1098–1110
Transcription factors. *See also* specific names
abrupt gene, role in control of neuromuscular connections in *Drosophila* (Hu et al.), 2936–2948
binding to *torso* response element (Liaw et al.), 3163–3176
Brn-2, role in development of endocrine hypothalmus and pituitary gland in mice (Schonemann et al.), 3122–3135
Brn-2 loss of function, effects in mice (Nakai et al.), 3109–3121
CCAAT-binding factor subunit HAP5, cloning and characterization of (McNabb et al.), 47–58
DNA-PK as an inhibitor of RNA polymerase I transcription (Kuhn et al.), 193–203
E2F-1 accumulation, bypass of G_1 arrest by (DeGregori et al.) 2873–2887
GATA-1, hematopoietic lineage determination (Kulessa et al.), 1250–1262
in initiation and elongation (Zawel et al.), 1479–1490
lymphocyte activation defects in Rel-deficient mice (Köntgen et al.), 1965–1977
NTF-1/Elf-1 regulation of ventral repression of *decapentaplegic* (Huang et al.), 3177–3189
RFX5, a novel DNA-binding regulatory factor (Steimle et al.), 1021–1032
scratch gene product in *Drosophila*, proposed function (Roark et al.), 2384–2398
Transcription initiation
association of an activator with RNA Pol II holoenzyme (Hengartner et al.), 897–910
effects of enhancers and core promoters on Pol II pausing (Krumm et al.), 559–572
increase in efficiency by HMG17 (Paranjape et al.), 1978–1991
influence of pol II subunit RPB9 on mRNA start-site selection (Hull et al.), 481–490
involves mature initiation complexes (Zawel et al.), 1479–1490
Transcriptional activity, DNA methylation and *XIST* expression (Beard et al.), 2325–2334
Transcriptional antitermination, cooperative assembly of antitermination complex on *E. coli* RNA polymerase (Mogridge et al.), 2831–2844
Transcriptional regulation
of *achaete* and *scute* by shared enhancer-like elements (Gómez-Skarmeta et al.), 1869–1882
activation
by PacC in *Aspergillus* (Orejas et al.), 1622–1632
by Pip in lymphoid tissues (Eisenbeis et al.), 1377–1387
via HMG-2 (Shykind et al.), 1354–1365
activator, association with RNA Pol II holoenzyme (Hengartner et al.), 897–910
altered dimerization specificity mutant of *E. coli* CRP (Joung et al.), 2986–2996
by α2 homeo domain mutants (Vershon et al.), 182–192

BETA2, novel bHLH activator of the insulin gene (Naya et al.), 1009–1019
CCAAT-binding factor subunit HAP5, cloning and characterization (McNabb et al.), 47–58
chromatin-dependent *trans*-activation of HIV-1 enhancer by LEF-1 (Sheridan et al.), 2090–2104
Cpx regulation of *degP* transcription in *E. coli* (Danese et al.), 387–398
CTF-1 *trans*-activation domain interacts with histone H3 (Alevizopoulos et al.), 3051–3066
determination of hematopoietic lineage by GATA-1 (Kulessa et al.), 1250–1262
DNA–PK inhibition of RNA polymerase I transcription (Kuhn et al.), 193–203
effects of enhancers and core promoters on Pol II pausing (Krumm et al.), 559–572
Enhancer of split Complex genes, control by Suppressor of Hairless (Bailey and Posakony), 2609–2622
GAGA protein, in vivo distribution on *Drosophila* heat shock genes (O'Brien et al.), 1098–1110
of genomic imprinting (Chaillet et al.), 1177–1187
groELc role in *nod* regulation in *R. meliloti* (Ogawa and Long), 714–729
LEF-1 versus TCF-1 gene expression and hair morphogenesis (Zhou et al.), 700–713
MEF2 role in *Drosophila* myogenesis (Bour et al.), 730–741
of the MMTV promoter by progesterone receptor (Mymryk and Archer), 1366–1376
and neural tube defects in *twist*-null mice (Chen and Behringer), 686-699
nucleosomal organization and transcriptional activity of the yeast *SNR6* locus (Marsolier et al.), 410–422
p130, suppression of E2F-4-mediated *trans*-activation (Vairo et al.), 869–881
phosphorylation role in *Salmonella typhimurium* (Ostrovsky and Maloy), 2034–2041
Pit-1 synergy domain, monomer/dimer determination (Holloway et al.), 1992–2006
Pol II subunit RPB9, influence on mRNA start-site selection (Hull et al.), 481–490
of *RPS14* transcription (Tasheva and Roufa), 304–316
relief of YY1 transcriptional repression by E1A (Lee et al.), 1188–1198; Addendum, 1948–1949
role of
TAF$_{II}$250 interaction with RAP74 (Ruppert and Tjian), 2747–2755
TFIIIC in RNA polymerase specificity (Roberts et al.), 832-842
in *Suppressor of Hairless* mutant *Drosophila* (Lecourtois and Schweisguth), 2598–2608
TFIIIB, bidirectional assembly in the yeast U6 RNA gene (Whitehall et al.), 2974–2985
TFIIICβ, cloning and characterization (Sinn et al.), 675–685
by *torso* response element (Liaw et al.), 3163–3176
TPR-motif mediation of Cyc8–Tup1 protein–protein interactions (Tzamarias and Struhl), 821–831
of TRβA gene by thyroid hormone receptor in *Xenopus* (Wong et al.), 2696–2711
of ventral repression of *decapentaplegic* (Huang et al.), 3177–3189
Transcriptional repression
by PacC in *Aspergillus* (Orejas et al.), 1622–1632
RAP1 action at *HM* loci and telomeres (Buck and Shore), 370–384
relief of YY1, by E1A (Lee et al.), 1188–1198; Addendum, 1948–1949
Ssn6 interaction with homeo domain protein α2 (Smith et al.), 2903–2910
suppression of E2F-4-mediated *trans*-activation by p130 (Vairo et al.), 869–881
TPR-motif mediation of Cyc8–Tup1 protein–protein interactions (Tzamarias and Struhl), 821–831
Transcriptional silencing
RAP1 actiopn at *HM* loci and telomeres (Buck and Shore), 370–384
role of ORC in transcriptional silencing (Fox et al.), 911–924
Transformer proteins
alternative splicing of *doublesex* pre-mRNA (Lynch and Maniatis), 284–293
binding to *dsx*RE purine-rich enhancer sequence (Lynch and Maniatis), 284–293
synergistic interactions in a splicing enhancer (Lynch and Maniatis), 284–293
Transforming growth factor-β
cell cycle arrest by, via Cdk inhibitors (Reynisdóttir et al.), 1831–1845
disruption of BMP signal and neural induction in *Xenopus* (Hawley et al.), 2923–2935
induces activity of proline-rich domain of CTF-1 (Alevizopoulos et al.), 3051–3066
p53 regulation of CDK4 in TGF-β-induced cell cycle arrest (Ewen et al.), 204–217
receptor
Bmpr in mouse (Mishina et al.), 3027–3037
TGF-β1 and TβRII in epidermal homeostasis (Cui et al.), 945–955
requirement for BMP-7
during mammalian kidney and eye development (Dudley et al.), 2795–2807
for eye development, nephrogenesis, and skeletal patterning (Luo et al.), 2808–2820
signaling interpreted by distal element of *gsc* promoter in *Xenopus* (Watabe et al.), 3038–3050
TGF-β1 and TβRII in epidermal homeostasis (Cui et al.), 945–955
Transgenic mice. *see* Mouse, transgenic
Translation
characterization of GCD10, RNA-binding subunit of eIF-3 (Garcia-Barrio et al.), 1781–1796
initiation factors, GCD10 as RNA-binding subunit of eIF-3 (Garcia-Barrio et al.), 1781–1796
p53 regulation of CDK4 translation (Ewen et al.), 204–217
role for mRNA 5′ and 3′ ends in initiation in yeast (Tarun and Sachs), 2997–3007
trans-acting factors in nonsense-mediate RNA decay (Cui et al.), 423–436
Translational control, *trans*-acting factors in nonsense-mediated mRNA decay in yeast (Cui et al.), 423–436; (He and Jacobsen), 437–454
Translational frames, and nucleosome positioning on the MMTV LTR (Fragoso et al.), 1933–1947
Translational repression, characterization of *GCN4* translational repressor, GCD10 (Garcia-Barrio et al.), 1781–1796
Transmembrane proteins, identification of *M. xanthus pkn2* gene encoding a transmembrane serine/threonine kinase (Udo et al.), 972–983
Transposable elements, as tools for enhancer traps and gene traps in *Arabidopsis* (Sundaresan et al.), 1797–1810
Transposase, catalysis of single-stranded DNA circularization reaction (Polard and Chandler), 2846–2858
Transposition
cytotype control of P-element (Roche et al.), 1278–1288

dissassembling of the Mu transposase by ClpX (Levchenko et al.), 2399–2408
enhancer-trap transposon targeting of the *Drosophila Broad-Complex* locus (Gonzy-Tréboul et al.), 1137–1148
regulation of Tn*10*/IS*10*, by IHF (Signon and Kleckner), 1123–1136
Trophinin, role in embryo implantation (Fukuda et al.), 1199–1210
Trophoblasts
normal function in β1-integrin null mice (Stephens et al.), 1883–1895
role of trophinin and tastin in cell adhesion (Fukuda et al.), 1199–1210
trunk, putative extracellular ligand specifying body pattern in *Drosophila* (Casanova et al.), 2539–2544
Tube protein, activation of dorsal by Toll and, in *Drosophila* (Norris and Manley), 358–369
Tubulin genes, effect of *DIMINUTO* mutant on β-tubulin expression in *Arabidopsis* (Takahashi et al.), 97–107
Tumor suppression, induction of apoptosis by *trans*-activation deficient p53 in HeLa cells (Haupt et al.), 2170–2183
Tumor suppressor, possible function for Abi-2, substrate for c-Abl (Dai and Pendergast), 2569–2582
Tumor suppressor genes
gld-1 essential for oogenesis in *C. elegans* (Jones and Schedl), 1491–1504
interactions with oncogenes (Verma et al.), 1289–1301 Meeting Review
rise of the genetic paradigm (Bishop), 1309–1315 Meeting Review
warts, *Drosophila* homolog of human myotonic dystrophy kinase (Justice et al.), 534–546
Tumor viruses, and cancer (Bishop), 1309–1315 Meeting Review
Tumorigenesis, mammary tumors in *p53* mutant *Wnt-1* transgenic mice (Donehower et al.), 882–895
Tup1, protein–protein interaction with Cyc8 (Tzamarias and Struhl), 821–831
twist
neural tube defects in *twist*-null mice (Chen and Behringer), 686-699
site-specific recombination promoted by FLB recombinase in yeast (Qian and Cox), 2053–2064
Tyrosine kinases. *see also* specific types
Abi-2, substrate for c-Abl (Dai and Pendergast), 2569–2582
association of Abi-1 with Abl oncoproteins (Shi et al.), 2583–2597
Tyrosine phosphorylation, of the Abelson tyrosine kinase substrate *enabled* (Gertler et al.), 521–533

U

U1 snRNP
overexpression of 70K subunit in COS cells (Romac and Keene), 1400–1410
U1-independent pre-mRNA splicing (Crispino and Sharp), 2314–2323
U2 snRNA, novel U2–U6 snRNA structure for splicing (Sun and Manley), 843–854
U5 snRNP
encoded by the yeast *PRP8* gene (Umen and Guthrie), 855–868
role in 3′ splice site selection in yeast (Umen and Guthrie), 855–868
U6
gene promoter, role of TFIIIC in RNA polymerase specificity for U6 transcription (Roberts et al.), 832–842
RNA gene, bidirectional assembly of TFIIIB in yeast (Whitehall et al.), 2974–2985
snRNA, novel U2–U6 snRNA structure for splicing (Sun and Manley), 843–854
U14, base-pairing with 18S RNA during rRNA processing (Liang and Fournier), 2433–2443
U17 snoRNA, processing and maturation (Kiss and Filipowicz), 1411–1124
U19 snoRNA, processing and maturation (Kiss and Filipowicz), 1411–1124
Ubiquitin, targeting of IκBα to the ubiquitin–proteasome pathway (Chen et al.) 1586–1597
Upf1p-interacting factors, Nmd2p and enhanced mRNA decay in yeast (He and Jacobsen), 437–454
UPF2 gene, role in nonsense-mediated mRNA decay in yeast (Cui et al.), 423–436
Urokinase-type plasminogen activator, normal proenzyme activity in plasminogen-deficient mice (Bugge et al.), 794–807

V

v-Abl, association with Abi-1 (Shi et al.), 2583–2597
VCAM-1, role of VCAM-1 in umbilical cord and placenta formation (Gurtner et al.), 1–14
V(D)J recombination
RAG-1 and target specificity (Sadofsky et al.), 2193–2199
resolution of double-strand break intermediates (Ramsden and Gellert), 2409–2420
Vertebrate head, role of homeo box gene *Dlx-2* (Qiu et al.), 2523–2538
Vg1, formation of Spemann's organizer in *Xenopus* (Watabe et al.), 3038–3050
Virus–host interaction, HPV E7 induction of host DNA replication in spinous cells (Cheng et al.), 2335–2349
Visceral mesoderm, essential role of MEF2 in *Drosophila* myogenesis (Bour et al.), 730–741
Vitamin A signaling pathway, RXR heterodimerization with NGFI-B and NURR1 (Perlmann and Jansson), 769–782
Viviparous-1, inhibits induction of germination specific genes in maize (Hoecker et al.), 2459–2469
VP16
association with HCF (Wilson et al.), 24456–2458
complex formation with Oct-1 (Herr and Cleary), 1679–1693 Review
Vulval development, *C. elegans*
lin-1 (Beitel et al.), 3149–3162
lin-25 (Tuck and Greenwald), 341–357
mek-2 (Wu et al.), 742–755; (Kornfeld et al.), 756–768
sur-2 in *let-60 ras* signaling pathway (Singh and Han), 2251–2265
Vulval induction. *See* Vulval development

W

white, investigation of position effect variegation by use of a P element containing *white* and *hsp26* genes (Wallrath and Elgin), 1263–1277
Wilms' tumor, stabilization of p53 by WT1 (Maheswaran et al.), 2143–2156
Wingless signaling, modification of Dishevelled in *Drosophila* development (Yanagawa et al.), 1087–1097
Wnt family
induction of myogenic bHLH gene expression (Münsterberg et al.), 2911–2922
mammary tumors in *p53* mutant *Wnt-1* transgenic mice (Donehower et al.), 882–895
Wnt-1, mammary tumors in *p53* mutant *Wnt-1* transgenic mice (Donehower et al.), 882–895
Wound healing, in fibrinogen-deficient mice (Suh et al.), 2020–2033
WT1, stabilization of p53 (Maheswaran et al.), 2143–2156

X

X chromosome inactivation, DNA methylation and *XIST* expression (Beard et al.), 2325–2334
Xenopus
  cyclin A stability during embryogenesis (Howe et al.), 1164–1176
  disruption of BMP signal and neural induction (Hawley et al.), 2923–2935
  regulation of TRβA gene by thyroid hormone receptor (Wong et al.), 2696–2711
XIST gene, activation in somatic cells from loss of methylation (Beard et al.), 2325–2334
Xt. *See Extra toes*

Y

Yeast. *See Saccharomyces cerevisiae; Schizosaccharomyces pombe*
yolk protein genes, integration of sex- and tissue-specific regulation in *Drosophila* (An and Wensink), 256–266
YY1, relief of YY1 transcriptional repression by E1A (Lee et al.), 1188–1198; Addendum, 1948–1949

Z

Zinc finger proteins
  encoded by *scratch* in *Drosophila* (Roark et al.), 2384–2398
  role of *Drosophila abrupt* gene in control of neuromuscular connections (Hu et al.), 2936–2948
ZK98299, in prevention of PR binding to chromatin (Mymryk and Archer), 1366–1376
Zone of polarizing activity, duplication in polydactylous mutant mice (Masuya et al.), 1645–1653
ZPA. *See* Zone of polarizing activity